

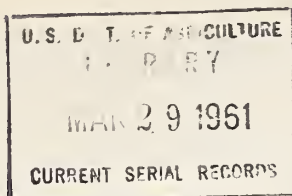
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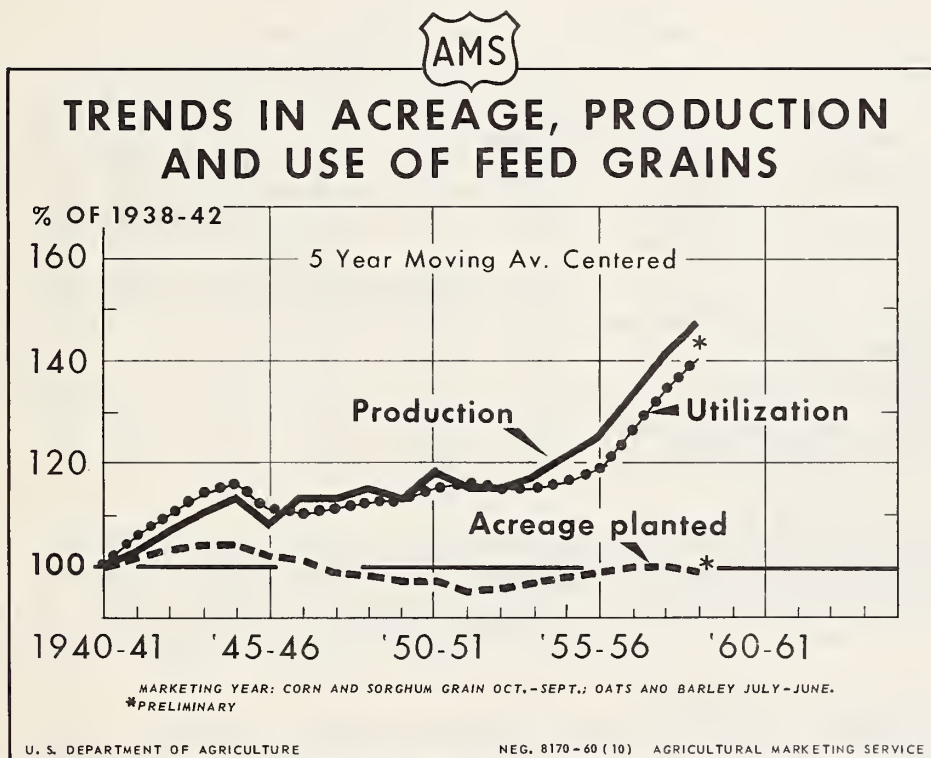
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The FEED SITUATION

FDS-184



1961 OUTLOOK ISSUE
NOVEMBER 1960
FOR RELEASE
NOV. 7, P. M.



There has been little change in the total acreage planted to feed grains during the past 20 years. But yield per acre in 1956-60 was up nearly 50 percent over 20 years ago, resulting in a comparable increase in production. Feed grain utilization, domes-

tic and export, has trended upward sharply in recent years, but has consistently fallen below production. This has given rise to a steady increase in carryover stocks which reached 75 million tons in 1960.

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AGRICULTURAL MARKETING SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

Table 1.- Statistical Summary

		PRICES								
Item	Unit	1958		1959		1960				
		Sept.	Oct.	Sept.	Oct.	Aug.	Sept.	Oct.		
		Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.		
Grains and Hay										
Corn, No. 3 Yellow, Chicago	Bushel	1.27	1.15	1.16	1.10	1.18	1.16	1/1.10		
Price received by farmers, U. S.	Bushel	1.13	1.04	1.09	.990	1.07	1.06	.991		
Oats, No. 1 White, Chicago	Bushel	.630	.636	.703	.757	.697	.666	2/.662		
No. 2 White, Minneapolis	Bushel	.603	.618	.679	.716	.615	.613	1/.612		
Price received by farmers, U. S.	Bushel	.556	.562	.620	.650	.578	.601	.597		
Barley, No. 3, Minneapolis	Bushel	1.14	1.14	1.09	1.11	1.03	1.01	1/1.07		
Price received by farmers, U. S.	Bushel	.861	.865	.846	.866	.801	.817	.843		
Grain sorghum, price received by farmers, U.S.:	100 pounds:	1.68	1.57	1.52	1.48	1.51	1.49	1.42		
Wheat, No. 2 Hard Winter, Kansas City	Bushel	1.95	1.97	2.01	2.05	1.94	1.98	1/1.99		
Hay, No. 1 Alfalfa, baled, Kansas City	Ton	24.50	25.00	29.00	29.00	30.00	32.00	29.50		
Price received by farmers, baled, U. S.	Ton	17.60	18.00	19.90	20.50	19.50	19.60	20.20		
Byproduct Feeds (Bulk)										
Standard bran, Minneapolis	Ton	28.80	27.75	28.00	31.00	29.90	29.35	30.90		
Buffalo	Ton	33.50	33.60	31.30	33.85	36.00	35.60	34.00		
Price paid by farmers, U. S.	100 pounds:	2.68	2.66	2.70	2.76	2.80	2.79	2.77		
Standard middlings, Minneapolis	Ton	29.00	27.40	28.00	31.85	28.80	28.25	31.15		
Buffalo	Ton	36.70	34.75	34.30	38.25	36.50	37.00	35.50		
Price paid by farmers, U. S.	100 pounds:	2.82	2.79	2.85	2.93	2.91	2.88	2.85		
Soybean meal, 44 percent protein, Chicago	Ton	66.70	56.10	55.50	60.65	54.30	57.80	52.80		
Price paid by farmers, U. S. 44% protein	100 pounds:	4.41	4.32	4.12	4.12	3.98	4.01	3.96		
Cottonseed meal, 41 percent protein, Memphis ..	Ton	55.10	52.00	51.80	58.40	57.70	52.60	52.75		
Price paid by farmers, U. S. 41% protein	100 pounds:	3.97	3.79	3.97	3.90	4.05	4.04	3.96		
Linseed meal, 36 percent protein, Minneapolis ..	Ton	49.80	50.60	65.70	69.25	53.10	51.35	50.50		
Peanut meal, 45 percent protein, S. E.	Ton	58.30	57.50	55.45	60.50	52.85	55.00	53.85		
milling points	Ton	38.00	37.00	33.80	35.50	34.60	35.00	36.50		
Gluten feed, 21 percent protein, Chicago	Ton	42.80	39.10	35.40	37.10	39.10	39.25	40.50		
Hominy feed, Chicago	Ton	38.80	39.90	36.80	35.50	36.80	41.10	44.25		
Brewers' dried grains, 24 percent protein, Milwaukee	Ton	58.20	51.75	44.80	42.00	49.80	51.50	52.50		
Distillers' dried grains, 28 percent protein, Cincinnati	Ton	105.75	103.75	76.25	73.20	70.75	68.75	67.10		
Tankage digester, 60 percent protein, Chicago ..	Ton	103.75	100.00	76.50	72.05	71.25	68.75	66.70		
Meat meal, 50 percent protein, Chicago	Ton	146.75	145.00	126.60	125.00	89.60	89.00	89.00		
Fish meal, 60% protein, Buffalo, f.o.b. seaboard.	Ton	34.70	43.00	43.40	49.50	39.20	40.10	45.15		
Alfalfa meal, 17 percent dehydrated, Kansas City	Ton	3.58	3.57	3.57	3.58	3.57	3.57	3.56		
Mixed dairy feed, 16 percent protein, price paid by farmers, U. S.	100 pounds:	4.50	4.45	4.36	4.35	4.30	4.29	4.26		
Laying mash, price paid by farmers, U. S.	100 pounds:	3.96	3.91	3.86	3.84	3.84	3.83	3.81		
Scratch feed, price paid by farmers, U. S.	100 pounds:	.180	.170	.160	.156	.135	.135	.135		
Molasses, blackstrap, New York	Gallon									

INDEX NUMBERS OF PRICES

		Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
Feed grains, price received by farmers, U. S. ..	1947-49=100:	67	63	65	61	63	63	61
Eleven principal high-protein feeds, wholesale : prices at terminal markets	1947-49=100:	88	81	78	82	76	77	74
Five oilseed meals	1947-49=100:	88	80	80	86	78	80	76
Tankage, meat scraps, and fish meal	1947-49=100:	96	96	77	72	66	64	63
Gluten feed, brewers' dried grains, and distillers' dried grains	1947-49=100:	80	77	65	66	70	72	74
Feed, price paid by farmers, U. S.	1947-49=100:	86	85	84	84	84	84	83

LIVESTOCK-FEED PRICE RATIOS 3/

(October average)									
Hog-corn, Chicago 4/	1949-58= 13.4:	Bushel	16.1	16.6	11.9	11.9	14.3	14.3	1/16.2
Hog-corn, U. S. farm price	1949-58= 14.3:	Bushel	17.6	17.8	12.2	12.7	15.3	14.7	17.1
Beef steer-corn, Chicago 5/	1949-58= 20.2:	Bushel	21.1	23.2	23.6	24.7	20.9	21.1	1/22.5
Milk-feed, U. S.	1949-58= 1.44:	Pound	1.47	1.54	1.50	1.60	1.41	1.51	1.59
Butterfat-feed, U. S.	1949-58= 23.0:	Pound	24.5	25.4	25.0	25.6	24.2	24.8	25.7
Egg-feed, U. S.	1949-58= 12.4:	Pound	12.2	11.6	9.9	9.6	10.3	11.7	13.3
Farm chicken-feed, U. S.	1949-58= 4.8:	Pound	3.6	3.5	2.8	2.8	3.6	3.6	3.5
Commercial broiler-feed, U. S.	1949-58= 4.5:	Pound	3.2	3.2	3.2	3.2	3.6	3.5	3.5
Turkey-feed, U. S.	1949-58= 8.2:	Pound	6.9	7.1	6.7	6.8	7.2	7.4	7.9

1/ Average for 3 weeks ended October 21, 1960. 2/ Average for 2 weeks ended October 14, 1960. 3/ Units of corn or other concentrate ration equal in value to 100 pounds of hog or beef steer, one pound of chicken, butterfat, or milk, or one dozen eggs. 4/ Based on packer and shipper purchases of hogs and No. 3 Yellow corn. 5/ Based on price of beef steers sold out of first hands for slaughter and No. 3 Yellow corn.

Prices compiled from Wall Street Journal, Chicago edition, Minneapolis Daily Market Record, Kansas City Grain Market Review, and reports of the Agricultural Marketing Service.

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T H E F E E D S I T U A T I O N
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Approved by the Outlook and Situation Board, November 1, 1960

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SUMMARY

The total feed concentrate supply for 1960-61 is estimated at 270 million tons, 3 percent over 1959-60 and a new record high for the seventh straight year. The big supply this year is the result of another generally favorable growing season, with production close to record high last year and record carry-over stocks.

The number of grain-consuming animal units on farms in 1960-61 is expected to be a little below the 1959-60 level. The decline from a year earlier will be greatest this fall and winter, as fewer hogs and poultry will be on farms at that time. But feeding rates per animal are expected to continue high and total consumption is expected to at least equal the record 1959-60 level. Even with continued heavy consumption of feed grains, carryover into 1961-62 is expected to rise again--probably to around 5 to 10 percent over the 75 million tons carried over into 1960-61.

After a late start, the 1960 growing season turned out favorable for both feed grains and forage crops. Feed grain production is within 1 percent of the 1959 record and this year's hay crop is only 3 percent below the record output in 1958. Feed production this year is ample for livestock on farms in most areas of the country, though drought reduced output of both feed grains and forages in areas of the South and West.

The 1960-61 corn supply totals over 6.0 billion bushels, 166 million more than last year and 1.5 billion above the 1954-58 average. After a late start, the 1960 crop matured to good quality and was only 2 percent below the 1959 record harvest. The 4.3 billion bushels produced this year is expected again to exceed total utilization, and carryover is expected to increase to around 2.0 billion on October 1, 1961.

The sorghum grain crop of 603 million bushels is 4 percent larger than the big crop last year. The total supply of nearly 1.2 billion bushels is over 4 times the supply of only 4 years ago. Carryover of sorghum grain is expected to increase from 581 million bushels in 1960 to over 600 million in 1961. The 1960-61 oat supply is about the same as the small 1959-60 supply and 13 percent below the 1954-58 average. The barley supply is 5 percent smaller than that of 1959-60, but a little above average.

Feed grain prices are slightly lower this fall than a year ago and probably will average a little lower for the entire 1960-61 feeding year. Another big crop, a slight reduction in livestock on farms, and the lower support for 1960 corn are major factors affecting prices. The national average support price for 1960 corn is \$1.06 per bushel, 6 cents lower than in 1959. Price supports for the other feed grains are the same as in 1959. Prices of corn and sorghum grain are expected to fall somewhat below the support level at harvest time this fall, then rise later in the marketing year to near or a little above supports. Oat prices this year continue high relative to most other feeds, reflecting another short supply. Prices of both oats and barley are generally above the 1960 price supports; comparatively small quantities of these grains are expected to go under price support.

Supplies of high-protein feeds available for domestic feeding in 1960-61 are expected to be a little larger than those of 1959-60. Export demand for oilseed meal is expected to be substantially lower in the first half of 1960-61 than a year earlier, leaving more for domestic use. Prices of protein feeds probably will average a little lower in the 1960-61 feeding year than in 1959-60.

OUTLOOK FOR FEED GRAIN SUPPLIES IN 1960-61

Feed Concentrate Supply Up 3 Percent to New Record

The total feed concentrate supply for 1960-61 is estimated at 270 million tons, 3 percent above the record supply last year and 29 percent above the 1954-58 average. Another favorable growing season for feed grains this year, along with record carryover stocks and prospects for large supplies of byproduct feeds, are responsible for the big supply. Each year since 1952, total feed concentrate supplies have increased, setting new records from 1954 to date. The 1.63-ton supply per animal unit also is a new high--more than a fourth above the 5-year average.

Table 2 .- Feed concentrate balance, numbers of animal units, and feed per unit, United States, year beginning October, average 1954-58, annual 1955-60

Item	Average 1954-58	1955	1956	1957	1958	1959 1/	1960 2/
	Mil. tons	Mil. tons	Mil. tons	Mil. tons	Mil. tons	Mil. tons	Mil. tons
<u>Supply</u>							
Stocks beginning of year 3/	44.4	39.1	43.3	48.9	59.1	67.7	75.0
Production of feed grains:							
Corn	95.0	90.4	96.7	95.8	106.4	122.1	119.2
Oats	21.8	24.1	18.6	20.8	22.7	17.2	18.9
Barley	9.9	9.6	9.1	10.5	11.4	10.1	10.0
Sorghum grain	10.4	6.8	5.8	15.8	17.1	16.2	16.8
Total production	137.1	130.9	130.2	142.9	157.6	165.6	164.9
Imports of feed grains	.8	.9	.9	.9	.4	.5	.6
Wheat and rye fed	1.8	1.9	1.5	1.6	2.3	2.0	2.0
Byproduct feeds fed	25.1	24.1	24.6	26.0	27.1	27.3	27.3
Total supply	209.2	196.9	200.5	220.3	246.5	263.1	269.8
<u>Utilization, October-September</u>							
Concentrates fed 4/							
Corn	79.6	76.3	77.3	81.5	90.4	100.3	99.5
Oats	18.8	20.1	17.0	17.6	19.6	15.0	16.5
Barley and sorghum grain	11.0	9.6	10.2	12.9	14.1	16.2	17.0
Wheat and rye	1.8	1.9	1.5	1.6	2.3	2.0	2.0
Oilseed cake and meal	10.1	9.2	10.0	10.8	11.8	11.3	11.9
Animal protein feeds	3.1	3.3	3.1	2.9	3.1	3.1	3.0
Other byproduct feeds	12.0	11.6	11.5	12.3	12.2	12.9	12.4
Total concentrates fed	136.4	132.0	130.6	139.6	153.5	160.8	162.3
Feed grains for seed, human food and industry	12.6	12.5	12.6	12.4	13.0	13.0	13.0
Exports	8.9	8.1	7.3	10.5	12.7	12.2	12.0
Total utilization	157.9	152.6	150.5	162.5	179.2	186.0	187.3
Utilization adjusted to crop year basis	157.6	153.6	151.6	161.2	178.8	188.1	187.8
<u>Stocks at end of crop year 3/</u>	51.6	43.3	48.9	59.1	67.7	75.0	82.0
<u>Supply and utilization per animal unit</u>							
Total supply (Mil. tons)	209.2	196.9	200.5	220.3	246.5	263.1	269.8
Concentrates fed (Mil. tons)	136.4	132.0	130.6	139.6	153.5	160.8	162.3
Grain-consuming animal units (Mil.)	164.2	165.6	161.8	161.6	170.4	167.9	166.0
Supply per animal unit (Ton)	1.27	1.19	1.24	1.36	1.45	1.57	1.63
Concentrates fed per animal unit (Ton)	.83	.80	.81	.86	.90	.96	.98

1/ Preliminary.

2/ Preliminary estimates based on indications in October, 1960.

3/ Stocks of corn and sorghum grains in all positions on October 1, and oats and barley on July 1.

4/ Total quantities fed in the United States, including domestically produced and imported grains and byproduct feeds.

Table 3.- Feed grains: Supply and disappearance, United States, crop marketing years, average 1954-58, annual 1954-60

Item	: Average:	:	:	:	:	:	:	:
	: 1954-58:	1954	1955	1956	1957	1958	1959	1960
	:	:	:	:	:	:	1/	2/
	: Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.
	: tons	tons	tons	tons	tons	tons	tons	tons
Supply 3/	:	:	:	:	:	:	:	:
Carryover	:	:	:	:	:	:	:	:
Under price support	: 35.4	22.6	29.7	34.7	40.8	49.2	57.9	65.0
Other stocks	: 9.0	9.1	9.4	8.6	8.1	9.9	9.8	10.0
Total	: 44.4	31.7	39.1	43.3	48.9	59.1	67.7	75.0
Production	: 137.1	123.9	130.9	130.2	142.9	157.6	165.6	164.9
Imports 4/	: .8	.9	.8	.9	1.0	.4	.5	.6
Total supply	: 182.3	156.5	170.8	174.4	192.8	217.1	233.8	240.5
Utilization 3/	:	:	:	:	:	:	:	:
Livestock feed	: 109.4	99.5	106.9	105.2	111.4	123.9	133.1	133.5
Food, industry and seed	: 12.6	12.4	12.5	12.6	12.5	13.0	13.0	13.0
Exports 4/	: 8.7	5.5	8.1	7.7	9.8	12.5	12.7	12.0
Total	: 130.7	117.4	127.5	125.5	133.7	149.4	158.8	158.5
Carryover at end of year	: 51.6	39.1	43.3	48.9	59.1	67.7	75.0	82.0

1/ Preliminary.

2/ Preliminary estimates based on October indications.

3/ Supplies and disappearance of corn and sorghum grain during October-September and oats and barley during July-June.

4/ Includes grain equivalent of products.

Table 4.- Total concentrates fed to livestock, United States, by quarters, average 1954-58, annual 1955-60 1/

Year beginning October	: October-December 2/	: January-March	: April-June	: July-September	: Total October-September
	: Million tons	Million tons	Million tons	Million tons	Million tons
Average 1954-58	: 46.0	35.0	26.4	29.0	136.4
1955	: 44.3	34.0	24.5	29.2	132.0
1956	: 45.1	34.7	24.5	26.3	130.6
1957	: 46.1	35.4	28.4	29.7	139.6
1958	: 52.3	39.8	31.0	30.4	153.5
1959 3/	: 53.9	42.4	31.8	32.7	160.8

1/ Total quantity of grains and byproduct feeds fed to livestock.

2/ Includes all corn for silage, part of which is consumed after January 1.

3/ Preliminary.

Increasing supplies of feed concentrates in recent years have been accompanied by heavier feeding of livestock and increasing total disappearance. The total disappearance of all feed concentrates in 1959-60 feeding year reached a record high of 186 million tons, 18 percent over the 1954-58 average (table 2). This increase came largely through heavier feeding per animal and larger exports of feed grains with only a moderate increase in the number of livestock on farms. Since 1955 the rate of feeding per animal unit has gone up about 20 percent.

Favorable livestock-feed price ratios during the last year or so are expected to continue in 1960-61 and feeding per animal unit may continue the upward trend of recent years. Even with continued liberal feeding, the big feed grain crop this year is expected again to exceed total disappearance. The record supply of feed concentrates on hand for 1960-61 would permit a little heavier feeding per animal unit than the high rate in 1959-60 and leave a carryover into 1961-62 of around 7 million tons above the 75 million tons carried over into 1960-61.

Feed Grain Production Within 1 Percent of 1959 Record

The 1960 production of feed grains was estimated in October at 165 million tons, within 1 percent of the record crop produced in 1959 and 20 percent above the 1954-58 average. The big crop this year, together with the record carryover, gives a total supply of 240 million tons, 7 million tons more than in 1959-60 and nearly 60 million tons above the 5-year average (table 3).

High yields per acre during the last 3 years have been a major factor contributing to the increase in feed grain supplies. The combined yield of the four feed grains has increased sharply since 1954, when it averaged .85 ton per harvested acre. Average yield per acre reached 1.0 per acre for the first time in 1957, then rose to 1.15 tons in 1958. Yields equaled this record in 1959, then increased to 1.18 tons per acre in 1960. The increase in yield per acre has been especially pronounced in corn and sorghum grain, reflecting increased use of fertilizer, wider use of hybrid seed and expansion in irrigation in the Southwest and the Western Corn Belt States.

Each year since 1952, total utilization of feed grains fell below production (plus imports) at an annual average rate of about 5 percent, resulting in a steady buildup in feed grain carryover. This year it reached 75 million tons, nearly 4 times the carryover 8 years earlier. Increases in carryover in recent years have been entirely in stocks under loan or owned by CCC, which make up 87 percent of the total this year.

Corn Supply Totals Over 6 Billion Bushels

The total corn supply for 1960-61 was estimated in October at 6,059 million bushels, 166 million bushels above the big supply of last year. Corn supplies in recent years have increased sharply as a result of higher yields and the 15 percent increase in acreage from 1958 to 1959. The total supply

this year is more than 2 billion bushels above the supply of 6 years ago. The 1960 crop was estimated in October at 4,259 million bushels, only 2 percent less than the record crop last year and a fourth larger than the 1954-58 average.

Total disappearance of corn in the last 6 years has increased more than a third, reaching a record high of nearly 4.1 billion bushels in 1959-60. With liberal feeding in prospect, the quantity consumed by livestock is expected to be large again in 1960-61, but it may fall slightly below the 3,581 million bushels fed last year. Corn exports also have increased sharply in recent years and in 1960-61 are expected to remain near the high level reached in 1959-60. The record supply of corn for this year, however, would be sufficient to maintain total disappearance at close to the 4.1 billion bushels of 1959-60 and still leave a carryover of around 2 billion bushels at the close of the 1960-61 marketing year.

Sorghum Grain Supply Up 9 Percent

The sorghum grain supply for 1960-61 was estimated in October at 1,184 million bushels, about 100 million bushels or 9 percent larger than in 1959-60. The 1960 crop is estimated at 603 million bushels, 4 percent larger than the big crop last year. This is the fourth year that production has exceeded 500 million bushels, reflecting increased use of hybrids and heavier application of fertilizer, as well as, favorable growing seasons. Before 1957, the crop had never exceeded 243 million bushels. The big crops in recent years have consistently exceeded domestic consumption and exports. Carryover stocks increased sharply from 79 million bushels in 1957 to 581 million bushels this year.

With large crops and relatively low prices in recent years, consumption of sorghum grain also has been expanding. Some further increase in the quantity fed to livestock is expected in 1960-61. Exports totaling close to 100 million bushels annually in the last 2 years are expected to be maintained at this high level in 1960-61. Total disappearance of sorghum grain may be somewhat above the 508 million bushels of 1959-60. But again this year total disappearance is expected to fall below the year's heavy production, and carryover stocks probably will rise above the 600-million-bushel level at the close of the 1960-61 marketing year. In recent years, more than 95 percent of the sorghum grain carryover has been under loan or owned by CCC.

Oats Supply Again Below Average

The oat supply for 1960-61 is estimated at 1,452 million bushels, slightly above the small supply last year but 13 percent below the 1954-58 average. The steady decline in oat acreage in recent years resulted in production falling nearly 100 million bushels below total disappearance in 1959-60. This brought the carryover stocks of oats down to 269 million bushels on July 1 this year, nearly 100 million bushels below a year earlier. The acreage planted to oats in 1960 was 8 percent less than in 1959 and the lowest in more than 60 years. While the per-acre yield of oats was close to the record high of 1958,

Table 5 .- Corn and sorghum grain: Supply and distribution, year beginning October, average 1954-58 and annual 1955-60

Item	Average 1954-58	1955	1956	1957	1958	1959 1/	1960 2/
	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.
Corn							
<u>Supply</u>							
Production	3,393.2	3,229.7	3,455.3	3,422.3	3,800.9	4,361.2	4,259
Carryover 3/	1,202.0	1,034.8	1,165.5	1,419.7	1,470.5	1,530.4	1,799
Imports 4/	1.2	1.1	.9	1.9	1.1	1.2	1
Total supply	4,596.4	4,265.6	4,621.7	4,843.9	5,272.5	5,892.8	6,059
<u>Distribution</u>							
Wet-process products 5/	142.8	141.1	139.8	142.4	151.9	154.1	155
Dry-process products:							
Breakfast foods 6/	13.5	13.1	13.5	14.0	14.3	14.5	15
Farm household use	5.0	5.4	5.0	4.5	4.2	4.0	4
Cornmeal, grits, etc 7/	77.2	71.0	81.0	81.0	85.0	86.0	86
Alcohol and distilled spirits	27.9	27.1	28.8	27.5	33.7	30.5	30
Seed	12.1	12.0	11.4	11.4	13.0	12.9	13
Exports 4/	152.3	108.4	164.8	183.0	214.1	211.0	210
Total nonfeed uses	430.8	378.1	444.3	463.8	516.2	513.0	513
Livestock feed 8/	2,841.4	2,722.0	2,757.7	2,909.6	3,225.9	3,581.0	3,546
Total utilization	3,272.2	3,100.1	3,202.0	3,373.4	3,742.1	4,094.0	4,059
Carryover at end of year	1,324.2	1,165.5	1,419.7	1,470.5	1,530.4	1,798.8	2,000
Sorghum grain							
<u>Supply</u>							
Production	371.7	242.5	206.2	564.3	610.4	579.2	603
Carryover 3/	113.5	75.0	81.4	79.5	309.4	510.0	581
Total supply	485.2	317.5	287.6	643.8	919.8	1,089.2	1,184
<u>Distribution</u>							
Food and industry 9/	8.6	8.0	9.0	9.0	9.0	12.0	12
Seed	2.8	2.7	3.4	2.7	2.5	2.5	3
Exports	58.6	66.2	22.2	57.3	99.8	98.5	100
Total nonfeed uses	70.0	76.9	34.6	69.0	111.3	113.0	115
Livestock feed 8/	204.1	159.2	173.5	265.4	298.5	395.4	429
Total utilization	274.1	236.1	208.1	334.4	409.8	508.4	544
Carryover at the end of year	211.1	81.4	79.5	309.4	510.0	580.8	640

1/ Preliminary.

2/ Preliminary estimates based on conditions in October 1960. Tentative estimates of utilization and carryover at the end of the year.

3/ Stocks in all positions on October 1.

4/ Imports include grain equivalent of cornmeal and flour; exports are grain only.

5/ Production of starch, sirup, sugar, etc., for domestic use and export. Includes wet processing of sorghum grain.

6/ Estimated quantities used in making prepared breakfast foods.

7/ Estimated quantities used in producing cornmeal, flour, hominy and grits for human food and for brewers' use. Does not include livestock feeds produced in the dry-milling industry. Includes export of cornmeal under foreign relief program during 1955-57.

8/ Residual; includes small quantities for other uses and waste.

9/ Alcohol, distilled spirits and wet-processing.

Table 6 .- Oats and barley: Supply and distribution, year beginning, July, average 1954-58, annual 1955-60

Item	Average 1954-58	1955	1956	1957	1958	1959 1/	1960 2/
	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.
Oats							
Supply							
Production	1,358.5	1,503.1	1,163.2	1,301.0	1,415.6	1,074.0	1,178
Carryover, July 1 3/	288.3	302.7	347.0	240.5	324.8	367.6	269
Imports 4/	13.6	3.1	16.8	24.5	3.5	2.0	5
Total supply	1,660.4	1,808.9	1,527.0	1,566.0	1,743.9	1,443.6	1,452
Distribution							
Breakfast foods	39.0	38.0	39.0	40.0	41.0	42.0	42
Seed	105.0	112.2	106.9	96.4	90.4	82.9	83
Exports 4/	23.7	25.6	24.9	25.6	29.8	43.4	25
Total nonfeed uses	167.7	175.8	170.8	162.0	161.2	168.3	150
Livestock feed 5/	1,176.2	1,286.1	1,115.7	1,079.2	1,215.1	1,005.9	1,027
Total utilization	1,343.9	1,461.9	1,286.5	1,241.2	1,376.3	1,174.2	1,177
Carryover at end of year 3/	316.5	347.0	240.5	324.8	367.6	269.4	275
Barley							
Supply							
Production	414.0	401.2	376.9	437.2	475.2	420.2	415
Carryover July 1 3/	122.9	130.6	117.1	127.4	168.4	195.0	168
Imports 6/	23.5	28.3	26.5	24.4	14.3	17.5	20
Total supply	560.4	560.1	520.5	589.0	657.9	632.7	603
Distribution							
For alcohol and alco- holic beverages	83.4	84.6	83.5	82.0	84.2	86.9	87
For other purposes	5.5	5.5	5.5	5.5	5.5	5.5	5
Seed	26.0	23.9	26.6	26.3	26.7	24.9	25
Exports 6/	83.3	102.9	61.8	91.6	116.7	118.1	100
Total nonfeed uses	198.2	216.9	177.4	205.4	233.1	235.4	217
Livestock feed 5/	214.5	226.1	215.7	215.2	229.8	229.6	216
Total utilization	412.7	443.0	393.1	420.6	462.9	465.0	433
Carryover at end of year 3/	147.7	117.1	127.4	168.4	195.0	167.7	170

1/ Preliminary.

2/ Preliminary estimates based on conditions in October 1960. Tentative estimates of utilization and carryover at end of the year.

3/ Stocks in all positions.

4/ Imports include grain equivalent of oatmeal; exports are grain only.

5/ Residual; includes small quantities for other uses and waste.

6/ Both imports and exports include grain equivalent of products.

production was about 15 percent below the 1954-58 average. The small supply of oats available for this year will result in disappearance continuing below average in 1960-61, and little change in the carryover at the close of the season is in prospect.

Barley Supply Down 5 Percent

The total barley supply for 1960-61 is estimated at 603 million bushels, about 5 percent smaller than last year but 8 percent above the 1954-58 average. The 1960 crop of 415 million bushels was slightly below production last year but about equal to the 5-year average. Production in the important malting area of the Midwest was about the same as a year earlier, while production in the Western States was a little smaller.

The 1959 crop, plus imports, fell a little short of 1959-60 requirements and barley stocks were reduced from 195 million bushels on July 1, 1959 to 168 million on that date of 1960. The smaller supply this year is expected to result in a moderate reduction in domestic use, dropping from the high level of the 2 preceding years. Exports of barley in 1960-61 also are expected to be somewhat below the record exports last year. Total disappearance, however, may about equal 1960 production plus prospective imports, resulting in the carryover next July 1 remaining near the carryover on July 1, 1960.

Feed Grain Production Large in Midwest; Smaller in South and West

The big feed grain crop this year is generally well distributed over the country, although production is not as uniformly large as it was in 1959. Production of the four feed grains in the Midwest is about equal to the record output in that area last year. The production in the West North Central region was slightly above last year, setting a new record both in total and per grain-consuming animal unit in the area. Production has increased at a faster pace in this area than in other regions of the country. The total of nearly 74 million tons produced this year in this region is 28 percent above the 1954-58 average (table 7). Production in the East North Central region was about the same as a year earlier, but 19 percent above the 5-year average in relation to the number of grain-consuming animal units in that region. Feed grain production in the South Atlantic region this year was 3 percent above last year and a new high. It was 13 percent larger than average in relation to the livestock to be fed in the area. Production in the North Atlantic region was equal to a year ago and a fifth above average in relation to the number of livestock to be fed.

Feed grain production in the South Central region is down about 5 percent from the big crop produced in that area last year, but still substantially above the 1954-58 average. Drought in several of the Southern States cut corn production to substantially below average. Production of feed grains in the Western region also is below last year with the total tonnage for the

Table 7.- Feed grain production: Total and per animal unit, by regions, average 1954-58, annual 1955-60

Year	Production:	Grain-consuming animal units	Production per animal unit	Production:	Grain-consuming animal units	Production per animal unit
	1,000 tons	Mil. units	Tons	1,000 tons	Mil. units	Tons
	North Atlantic Region 1/			South Atlantic Region 1/		
Average 1954-58	4,622	13.9	.33	7,943	17.7	.45
1955	4,401	14.4	.31	8,122	17.1	.47
1956	4,732	13.9	.34	8,835	17.8	.50
1957	4,240	13.5	.31	7,190	18.4	.39
1958	5,157	13.2	.39	9,389	18.9	.50
1959	5,004	12.9	.39	9,353	19.0	.49
1960 2/	5,002	12.6	.40	9,659	18.8	.51
	East North Central Region 1/			West North Central Region 1/		
Average 1954-58	42,760	40.8	1.05	57,701	58.1	.99
1955	43,249	41.6	1.04	51,251	58.7	.87
1956	45,350	40.9	1.11	50,012	55.7	.90
1957	40,121	39.8	1.01	64,611	56.2	1.15
1958	44,447	41.2	1.08	69,487	61.4	1.13
1959	49,581	40.1	1.24	72,795	59.8	1.22
1960 2/	49,301	39.5	1.25	73,927	59.0	1.25
	South Central Region 1/			Western Region 1/		
Average 1954-58	15,827	22.5	.70	8,236	11.3	.73
1955	16,102	22.6	.71	7,777	11.2	.69
1956	13,949	22.4	.62	7,299	11.3	.65
1957	16,966	22.4	.76	9,804	11.3	.87
1958	19,985	23.8	.84	9,102	11.9	.76
1959	19,679	24.1	.82	9,186	12.5	.73
1960 2/	18,605	23.8	.78	8,423	12.4	.68

1/ North Atlantic - Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania.

East North Central - Ohio, Indiana, Illinois, Michigan, Wisconsin.

West North Central - Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

South Atlantic - Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.

South Central - Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, Texas.

Western - Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California.

2/ Preliminary, based on indications in October, 1960.

entire area down 8 percent. Production in this region is only about 3 percent above average and a little below average in relation to the number of grain-consuming livestock in the area. Livestock numbers in the Western region have been increasing in recent years. Greatest reductions from last year in supplies of feed grains are in several of the Mountain States-- where dry weather cut production of both feed grain and forages.

DEMAND AND PRICE PROSPECTS FOR 1960-61

Feed Grain Prices May Average A Little Lower in 1960-61

Feed grain prices are a little lower this fall than a year ago. Near-record feed grain production this year again will be above total requirements. With fewer hogs and poultry to be fed this winter and with a lower support level for corn, feed grain prices in 1960-61 are likely to average a little below prices in the 1959-60 feeding year.

Another big corn crop this year is expected to bring the 1960-61 average price of corn somewhat below the 1960 support level of \$1.06 per bushel. In 1959-60 prices received by farmers for corn averaged \$1.03 per bushel, 9 cents below the 1959 support. In December 1959 corn prices reached their seasonal low of 96 cents per bushel, then rose seasonally to \$1.09 in July 1960. Prices may follow a similar pattern in 1960-61, averaging a little lower than in 1959-60. The seasonal low probably will come earlier this fall than last year. Wet weather and high humidity delayed drying of the corn in 1959, and corn prices did not reach their seasonal low until December.

Prices received by farmers for oats have been relatively high during the past year, and are expected to continue high in 1960-61. Relatively high oat prices reflect the decline in oat acreage and the drop in oat production in recent years when bumper corn crops were produced. In October, the average price received by farmers for oats was 60 cents per bushel, 5 cents lower than a year earlier. At this price, oats would be about 15 percent above the mid-October price of 99 cents per bushel for corn, after adjusting for differences in weight and feeding value.

Barley prices averaged 84 cents per bushel in mid-October, 3 cents above the seasonal low reached in August, but 2 cents lower than a year earlier. Prices of both oats and barley are above the national average support level this year and relatively small quantities are going under price support.

Sorghum grain prices in 1960-61 probably will average slightly lower than in 1959-60. In mid-October, farmers received an average of \$1.42 per 100 pounds, a decline of 13 cents from the seasonal high of last July. The national average support price of \$1.52 per 100 pounds this year is the same as in 1959. Prices are expected to advance seasonally during the winter and spring of 1961-- they will probably rise to the support level, or a little above, by early next summer. Sorghum grain prices this fall are again low in relation to other feed grains, reflecting the big 1960 crop.

Table 8.- Feed grains: Average wholesale prices, monthly October-June weekly, July-October 1958-59 and 1959-60 1/

Period	Corn, No. 3 Yellow Chicago		Oats, No. 2 White Minneapolis		Barley, No. 3 Minneapolis		Milo, No. 2 Yellow Kansas City	
	1958-59	1959-60	1958-59	1959-60	1958-59	1959-60	1958-59	1959-60
	Dol. per bu.	Dol. per bu.	Dol. per bu.	Dol. per bu.	Dol. per bu.	Dol. per bu.	Dol. per bu.	Dol. per bu.
October	1.15	1.10	.618	.716	1.14	1.11	1.74	1.64
November	1.12	1.10	.625	.721	1.13	1.11	1.82	1.62
December	1.17	1.10	.634	.715	1.16	1.08	1.94	1.68
January	1.17	1.14	.633	.718	1.14	1.11	2.00	1.71
February	1.18	1.13	.631	.690	1.18	1.08	1.98	1.70
March	1.21	1.15	.637	.700	1.14	1.08	2.00	1.76
April	1.28	1.21	.648	.703	1.18	1.08	2.14	1.79
May	1.29	1.21	.658	.712	1.20	1.11	2.15	1.76
June	1.29	1.20	.672	.690	1.16	1.08	2.17	1.71
Week ended:								
July 1	1.28	1.17	.694	.682	1.18	1.02	2.10	1.67
8	1.24	1.20	.683	.682	1.21	1.05	2.12	1.70
15	1.27	1.21	.697	.664	1.21	1.03	2.21	1.79
22	1.27	1.19	.681	.644	1.14	1.01	2.22	1.81
29	1.27	1.18	.678	.641	1.09	.98	2.22	1.76
August 5	1.28	1.18	.672	.636	1.08	1.00	2.15	1.76
12	1.26	1.18	.683	.632	1.15	1.03	2.02	1.74
19	1.28	1.19	.677	.596	1.13	1.05	2.02	1.74
26	1.26	1.18	.676	.610	1.13	1.04	1.89	1.84
September 2	1.28	1.19	.677	.612	1.08	1.01	1.87	1.78
9	1.26	1.18	.676	.605	1.09	1.02	1.74	1.67
16	1.17	1.18	.679	.619	1.10	.99	1.68	1.62
23	1.12	1.14	.685	.623	1.11	.99	1.66	1.60
30	1.16	1.12	.692	.610	1.08	1.07	1.66	1.59
October 7	1.20	1.11	.706	.618	1.09	1.06	1.66	1.57
14	1.08	1.10	.715	.616	1.11	1.08	1.66	1.55
21	1.06	<u>2/1.08</u>	.726	.602	1.11	1.06	1.63	1.55

1/ Average prices weighted by carlot sales. 2/ Spot price.

Table 9.- Feed grains: Prices received by farmers on October 15 and support prices, 1958-60

Feed grains	Unit	Average price received by farmers, October 15			National average support price		
		1958	1959	1960	1958	1959	1960
		Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
Corn	Bushel	1.04	.990	.991	<u>1/1.36</u>	<u>2/1.12</u>	<u>2/1.06</u>
Oats	Bushel	.562	.650	.597	.61	.50	.50
Barley	Bushel	.865	.866	.843	.93	.77	.77
Sorghum grain	Cwt.	1.57	1.48	1.42	1.83	1.52	1.52

1/ National average support rates for producers in the commercial area who planted within their acreage allotments or Soil Bank base acreage. In 1958 there was a basic support of \$1.06 per bushel to noncompliers in the commercial area.

2/ National average rate available to all producers.

Livestock-Feed Price Ratios
Generally More Favorable

Generally lower feed prices this fall have been accompanied by higher prices for most livestock and livestock products with cattle the major exception. Livestock-feed price ratios are more favorable for hog and poultry producers this fall than last. Cattle prices, however, have declined more than corn, resulting in a drop in the beef steer-corn price ratio from the very favorable level last year.

Hog prices have been substantially higher this fall than a year ago while corn prices have been a little lower. The hog-corn price ratio, based on prices received by farmers, rose from 12.7 in October last year to 17.1 in October this year, compared with the 1949-58 October average of 14.3. Corn prices are expected to continue low in relation to hog prices during most of the 1960-61 feeding year.

The beef steer-corn price ratio, based on Chicago prices, has declined a little during the past year as beef cattle prices have gone down a little more than corn. In October, the average price per 100 pounds of all grades of slaughter cattle was equivalent to 22.5 bushels of corn, somewhat below 24.7 bushels for October last year, but above the 1949-58 average of 20.2 for the month. Lower cattle prices in 1960-61 are expected to result in a little lower beef steer-corn price ratio than in 1959-60, but the ratio probably will remain above the 10-year average.

Prices of dairy products have been above the long-term average during the past 2 or 3 years. During 1959-60 the average price of milk per pound was equivalent to **1.44 pounds of dairy ration**, compared with the 1949-58 average of 1.30. The butterfat-feed price ratio averaged 25.6, also above the 10-year average of 22.2. Prices of dairy products are expected to continue high in relation to feed costs through 1960-61.

Prices of poultry and eggs have increased relative to feed costs during the past year. In mid-October, the price of eggs per dozen was equivalent in value to 13.3 pounds of poultry ration, a much more favorable ratio to poultry producers than the 9.6 in October 1959, and also a little above the 10-year average. Prices of broilers, farm chickens and turkeys this fall also are higher relative to feed costs than in the fall of 1959. Poultry and egg prices are expected to continue a little higher than a year earlier relative to poultry ration costs through this winter. But in the spring and summer of 1961 poultry and egg-feed price ratios may be lower than in the same period of 1960.

Grain-Consuming Livestock Numbers
Lower This Fall and Winter

Fewer hogs and poultry on farms through this fall and winter are expected to result in a reduction in the total number of grain-consuming livestock during this period, compared with a year earlier. The generally favorable livestock-

feed-price ratios that prevailed during most of 1960 are expected to result in increased livestock production in 1961. Should this occur, increased numbers of grain-consuming livestock are probable in the latter part of the 1960-61 feeding year. The number of grain-consuming animal units to be fed for the entire feeding year, however, is expected to total about 166 million, slightly less than in 1959-60 (table 11).

The 16 percent reduction in the spring pig crop and the estimated 3 percent reduction in June-November farrowings will result in fewer hogs on feed through the coming winter and spring. Later in 1961, hog production probably will increase in response to the favorable hog-corn price ratio.

Ample supplies of lower priced corn will encourage continued heavy feeding of beef cattle this fall and winter. The number of cattle on feed October 1 in 26 States was 1 percent greater than last October. Dairymen have been increasing the quantity of grain and other concentrates fed per cow for a number of years. On October 1, the feeding rate was 3 percent above a year earlier and 27 percent above the 1949-58 average.

On October 1, the national laying flock of 289 million birds was 5 percent below 1959. The 205 million pullets on farms, some of which are included in the laying flock, were down 11 percent. The total laying flock will continue smaller than a year earlier through the first half of 1961. Broiler production this fall and winter, however, is expected to continue above a year earlier and probably will continue its upward trend into 1961. Total turkey production is running somewhat above the level of a year ago.

Feeding Per Animal Expected to
Continue Heavy in 1960-61

Rate of feeding has increased sharply in recent years, reaching the record high of .96 ton per animal unit in 1959-60. Feeding per animal is expected to continue liberal in 1960-61.

The marked recent increase in the rate of feeding of grains and other concentrates per animal unit follows a longer-term upward trend. From 1955-56 to 1959-60 the rate of feeding per animal unit increased 20 percent and during the last 20 years it has gone up about 40 percent.

Sharp increase in rate of feeding was the result of several factors. Large feed grain production in deficit feed areas, as well as in the Corn Belt, has favored liberal feeding. Feed grain prices also have generally been low in relation to livestock prices since 1957. The quality of the corn crop in 1957-58 and 1959-60 contributed to heavy feeding in those years. Favorable livestock-feed price ratios and large feed supplies are expected to result in continued liberal feeding in 1960-61.

Table 10.- Livestock-feed price ratios, United States,
average 1949-58, annual 1958-60

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
Hog-corn 1/													
Average 1949-58	13.7	14.3	14.1	13.8	14.0	14.0	14.0	14.3	14.2	14.3	13.8	13.3	14.0
1958	19.9	20.4	20.3	18.0	18.3	18.2	18.4	17.6	17.6	17.8	19.0	17.2	18.6
1959	16.1	14.8	14.6	13.7	13.4	12.8	11.9	12.2	12.2	12.7	12.3	11.8	13.2
1960	12.4	13.1	15.1	14.8	14.4	14.8	15.2	15.3	14.7	17.1			
Beef steer-corn 2/													
Average 1949-58	17.9	17.6	17.6	17.3	17.2	17.3	17.5	18.0	18.6	20.2	20.0	18.6	18.2
1958	23.7	23.6	24.3	22.2	21.6	20.5	19.9	19.3	21.1	23.2	24.0	23.1	22.2
1959	23.7	23.3	23.4	22.9	22.3	21.8	21.8	21.5	23.6	24.7	23.9	23.1	23.0
1960	22.8	23.4	23.8	22.5	22.1	21.3	21.2	20.9	21.1	22.5			
Milk-feed 3/													
Average 1949-58	1.36	1.32	1.27	1.19	1.15	1.14	1.20	1.26	1.35	1.44	1.49	1.43	1.30
1958	1.51	1.48	1.42	1.32	1.26	1.22	1.28	1.37	1.47	1.54	1.57	1.52	1.41
1959	1.46	1.42	1.37	1.32	1.27	1.27	1.33	1.39	1.50	1.60	1.61	1.54	1.42
1960	1.49	1.45	1.43	1.34	1.30	1.31	1.34	1.41	1.51	1.59			
Egg-feed 4/													
Average 1949-58	11.0	10.5	10.5	10.1	9.8	9.9	10.5	11.4	12.1	12.4	12.5	12.1	11.1
1958	11.8	11.3	12.2	11.1	10.5	10.1	10.5	10.8	12.2	11.6	11.8	11.0	11.2
1959	10.8	10.5	10.1	8.2	7.3	7.4	8.9	9.1	9.9	9.6	9.5	9.4	9.2
1960	8.9	8.7	9.7	10.6	9.7	9.3	9.4	10.3	11.7	13.3			
Commercial broiler-feed 5/													
Average 1949-58	4.8	4.9	5.2	5.0	4.8	4.9	5.0	5.0	4.8	4.5	4.5	4.2	4.8
1958	4.1	4.2	4.4	3.9	4.0	4.2	3.8	3.4	3.2	3.2	3.4	3.1	3.7
1959	3.4	3.4	3.4	3.3	3.2	3.2	3.3	3.2	3.2	3.2	3.1	3.7	3.3
1960	3.6	3.8	3.9	3.8	3.8	3.8	3.9	3.6	3.5	3.5			

1/ Number of bushels of corn equivalent in value to 100 pounds of hog, liveweight, based on local market prices. 2/ Bushels of No. 3 Yellow corn equivalent in value to 100 pounds of "Beef steers from the Corn Belt, sold out of first hands at Chicago for slaughter, all grades". 3/ Pounds of feed equivalent in value to one pound of milk, wholesale. 4/ Number of pounds of poultry ration equivalent in value at local farm markets to one dozen eggs. 5/ Number of pounds of broiler growing mash equal in value to 1 pound of broiler, liveweight.

Table 11.- Grain-consuming animal units fed annually, by kind of livestock,
United States, year beginning October 1954-60

Type of livestock	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60 1/	1960-61 2/
	Million units	Million units	Million units	Million units	Million units	Million units	Million units
Dairy cattle	28.0	27.6	27.3	26.6	25.9	25.9	26.0
Cattle on feed	11.6	11.6	12.0	11.8	12.9	13.8	15.0
Other cattle	8.9	9.1	8.9	8.8	9.3	10.0	10.2
Hogs	64.1	66.1	62.8	62.6	70.0	67.5	64.8
Poultry	42.5	45.1	45.4	46.5	47.2	45.7	45.0
Sheep	1.1	1.1	1.1	1.1	1.2	1.2	1.2
Horses and mules	5.5	5.0	4.5	4.2	3.9	3.8	3.8
Total	161.7	165.6	162.0	161.6	170.4	167.9	166.0

1/ Preliminary. 2/ Preliminary estimate based on indications in October 1960.

Compiled from reports of ARS, Farm Economics Research Division.

PROSPECTS FOR HIGH-PROTEIN AND OTHER BYPRODUCT FEEDS

Larger High-Protein Feed Supply
In Prospect for 1960-61

Total tonnage of high-protein feeds available for feeding in 1960-61 is expected to be a little larger than in 1959-60. Last year the total tonnage fed dropped 3 percent from the 1958-59 record level to 14.7 million tons (soybean meal equivalent) (table 12). With another large output of high-protein feeds available for 1960-61 and smaller exports in prospect, the total quantity available for feeding may increase to around the 1958-59 level of 15.2 million tons. The number of protein feed-consuming animal units is expected to be close to the 1959-60 level and protein feed supplies per animal unit probably will at least equal--and it may exceed--the record of 284 pounds per animal unit in 1958-59.

More Oilseed Meals in Prospect
For Domestic Use in 1960-61

The total supply of oilseed cake and meal for 1960-61 is expected to be slightly above the 12.4 million ton supply in 1959-60 (table 13). Production is expected to at least equal last year's level of 12.2 million tons. Carry-over stocks on October 1 totaled 257,000 tons, 67,000 more than on October 1 a year ago. Imports have declined in recent years and in 1960-61 they may fall somewhat below the 44,000 tons imported in 1959-60.

A prospective decline in exports in 1960-61 is expected to leave more oilseed meal available for domestic feeding than in 1959-60. Total exports of oilseed meal may fall considerably below the 837,000 tons currently estimated for 1959-60 when European countries bought heavily to replenish drought-stricken feed supplies. Allowing for exports at levels approximating the 1954-58 average, and for about the same carryover on October 1 next year as this, the quantity of oilseed meal available for feeding would be about 5 or 6 percent above that in 1959-60. The increase in supplies over last year will be greatest in the fall and winter. Exports were heaviest in 1959-60 during the fall and winter seasons, reducing the quantity available for domestic use.

The soybean meal supply for 1960-61 probably will be about 9.4 million tons, a little above the supply in 1959-60. Exports in 1960-61 are expected to be considerably below the record of about 644,000 tons of 1959-60. With this reduction in exports and about the same carryover on October 1 next year as on that date this year, the quantity available for feeding may be around 5 or 6 percent larger than the 8,428,000 tons fed in 1959-60.

The supply of cottonseed meal for 1960-61 is expected to be about 5 percent above the 2.6 million ton supply in 1959-60. The 1960-61 production is expected to be a little above the 2.5 million tons produced in 1959-60. Imports may decline further in 1960-61 and exports probably will be substantially, smaller. Allowing for the same carryover on October 1 next year as this year, the supply available for feeding would be around 150,000 tons larger than the 2,335,000 fed in 1959-60.

Table 12.- High-protein feeds: Quantity available for feeding, high-protein feed-consuming animal units, and quantity per animal unit, United States, average 1954-58, annual 1952-60

	:	Quantity available for feeding (In terms of 44 percent					:	:		
Year	:	protein soybean meal equivalent) 1/					:	Animal	:	Quantity
beginning	:	Oilseed meal		:	:	:	:	units fed	:	per
October 1	:	Soybean	:	Other	:	Animal	:	Grain	:	Total
	:	meal	:	oilseed	:	Total	:	protein	:	protein
	:	:	:	meals 2/	:	:	:	:	:	:
	:	1,000	:	1,000	:	1,000	:	1,000	:	1,000
	:	tons	:	tons	:	tons	:	tons	:	tons
Average	:							Million		Pounds
1954-58	:	7,093	:	2,284	:	9,377	:	3,069	:	873
	:							13,319	:	103.8
	:									257
1952	:	5,455	:	2,624	:	8,079	:	2,657	:	767
1953	:	4,965	:	2,876	:	7,841	:	2,955	:	826
1954	:	5,428	:	2,381	:	7,809	:	2,977	:	853
1955	:	6,042	:	2,429	:	8,471	:	3,264	:	897
1956	:	7,093	:	2,257	:	9,350	:	3,061	:	857
1957	:	7,962	:	2,146	:	10,108	:	2,914	:	859
1958	:	8,938	:	2,205	:	11,143	:	3,128	:	901
1959 3/	:	8,428	:	2,214	:	10,642	:	3,125	:	972
1960 4/	:	8,900	:	2,365	:	11,265	:	3,040	:	928
	:							15,233	:	106.0
	:									287

1/ Conversion factors to obtain quantity for feeding in terms of soybean meal equivalent and animal units fed annually are given in the Grain and Feed Statistics, March, 1960. 2/ Cottonseed, linseed, peanut and copra meals. 3/ Preliminary. 4/ Based on indications in October, 1960.

Table 13.- Oilseed cakes and meals: Supply and distribution, United States, year beginning October, 1958-60

Oilseed cake and meal	Supply				Distribution			
	Stocks (Oct. 1)	Pro- duction	Imports	Total	Feed	Other uses 2/	Exports	Stocks (Sept. 30)
	1/ tons	tons	tons	tons	tons	tons	tons	1/ tons
1958-59	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Soybean	48	9,490	3/	9,538	8,938	30	512	58
Cottonseed	71	2,154	128	2,353	2,199	30	27	97
Linseed	26	452	4	482	418	---	31	33
Peanut	2	75	---	77	75	---	---	2
Copra	1	115	31	147	147	---	---	4/
Total	148	12,286	163	12,597	11,777	60	570	190
1959-60 5/	58	9,127	---	9,185	8,428	30	644	83
Soybean	97	2,508	33	2,638	2,335	30	136	137
Cottonseed	33	361	3	397	311	---	57	29
Linseed	2	60	---	62	60	---	---	2
Peanut	4/	131	8	139	133	---	---	6
Copra	190	12,187	44	12,421	11,267	60	837	257
Total	190	12,187	44	12,421	11,267	60	837	257
1960-61 6/	83	9,300	---	9,383	8,900	---	---	---
Soybean	137	2,600	20	2,757	2,500	---	---	---
Cottonseed	29	350	5	384	335	---	---	---
Linseed	2	60	---	62	60	---	---	---
Peanut	6	125	5	136	135	---	---	---
Copra	257	12,435	30	12,722	11,930	---	---	---
Total	257	12,435	30	12,722	11,930	---	---	---

1/ Stocks at processors' plants. 2/ Estimated quantities of soybean meal used for industrial purposes and cottonseed meal used for fertilizer on farms of cotton growers. 3/ Less than 500 tons. 4/ Not reported. 5/ Preliminary. 6/ Forecast (except for stocks)-- based on indications in October, 1960.

Table 14.- Byproduct feeds: Estimated use for feed, year beginning
October, average 1954-58, annual 1955-60 ^{1/}

Item	Average: 1954-58	1955	1956	1957	1958	1959 ^{2/}	1960 ^{2/}
	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	tons	tons	tons	tons	tons	tons	tons
HIGH-PROTEIN FEEDS							
Oilseed cake and meal							
Soybean cake and meal	7,092	6,041	7,093	7,962	8,938	8,428	8,900
Cottonseed cake and meal	2,286	2,511	2,220	2,097	2,198	2,335	2,500
Linseed cake and meal	461	439	484	475	417	311	335
Peanut cake and meal	42	27	46	45	75	60	60
Copra cake and meal	171	160	181	187	146	133	135
Total	10,052	9,178	10,024	10,766	11,774	11,267	11,930
Animal proteins							
Tankage and meat meal	1,453	1,557	1,502	1,388	1,480	1,625	1,600
Fish meal and solubles	437	462	402	409	518	437	400
Commercial dried milk products	138	150	130	135	110	130	150
Noncommercial milk products	1,056	1,105	1,050	1,000	960	900	850
Total	3,084	3,274	3,084	2,932	3,068	3,092	3,000
Grain protein feeds							
Gluten feed and meal	1,038	1,072	1,010	1,030	1,044	1,136	1,100
Brewers' dried grains	235	246	236	225	231	239	235
Distillers' dried grains	290	286	290	280	342	360	325
Total	1,563	1,604	1,536	1,535	1,617	1,735	1,660
OTHER BYPRODUCT FEEDS							
Wheat millfeeds	4,606	4,487	4,628	4,689	4,658	4,773	4,800
Rice millfeeds	255	238	257	242	236	262	250
Dried and molasses beet pulp	559	478	550	655	560	570	575
Alfalfa meal	1,291	1,249	1,218	1,284	1,379	1,339	1,350
Fats and oils	180	127	192	271	238	239	250
Miscellaneous byproduct feeds ^{3/}	3,520	3,500	3,100	3,600	3,600	4,000	3,500
Total	10,411	10,079	9,945	10,741	10,671	11,183	10,725
Group total all byproduct feeds	25,110	24,135	24,589	25,974	27,130	27,277	27,315

^{1/} Estimated use for feed is derived by adding production and imports; deducting exports, utilization for food and other nonfeed uses, and adjusting for changes in stocks of cottonseed, soybean, linseed, peanut and copra cakes and meals, brewers' and distillers' dried grains and alfalfa meal.

^{2/} Preliminary estimates based on indications in October, 1960.

^{3/} Estimated quantities of hominy feed, oat millfeeds, molasses and screenings available for livestock feeding.

The supply of linseed meal for 1960-61 may be a little below the 397,000 tons in 1959-60. While the flaxseed crop is up by 32 percent over last year's small crop, the carryover is much less, so that total flaxseed supply is the same as in 1959-60. Demand for linseed oil is trending down-- the crush may fall a little below 1959-60. But exports in 1960-61 are expected to drop from the high rate of 1959-60 and the tonnage available for feeding may exceed the 311,000 tons fed in 1959-60.

Supplies of both peanut and copra meals in 1960-61 are expected to be near the levels of 1959-60. Copra meal imports will continue to be small-- production will make up most of the supply.

Tankage and Meat Meal Supply Up;

Fish Meal Supply Down

The total supply of tankage and meat meal available for feeding in the 1959-60 feeding year is estimated at 1,625,000 tons, about 10 percent larger than the 1,484,000 tons in 1958-59 (table 15). Total production during October-June was 14 percent larger than in the same 9 months of 1959-60. Supplies of meat meal and tankage are expected to be somewhat smaller this fall and winter than last, reflecting smaller hog slaughter. For the entire 1960-61 feeding year production probably will be only a little below the large output in 1959-60.

Table 15.- Tankage and meat meal and fish meal: Production, imports and prices, average 1954-58, annual 1954-59

Year beginning October	Tankage and meat meal			Fish meal			Prices	
	Pro-	Imports	Total	Pro-	Imports	Total	Meat meal, Chicago	Fish meal, Buffalo
	duction			duction				
	tons	tons	tons	tons	tons	tons	Dol. per ton	Dol. per ton
Average 1954-58	1,442.4	10.7	1,453.1	338.0	99.3	437.3	79.50	136.10
1954	1,326.7	12.6	1,339.3	310.3	84.7	395.0	75.60	135.35
1955	1,545.6	11.3	1,556.9	364.6	97.3	461.9	67.80	136.00
1956	1,495.5	6.1	1,501.6	320.1	81.8	401.9	69.10	129.75
1957	1,375.9	12.3	1,388.2	317.0	92.3	409.3	91.75	133.75
1958	1,468.5	11.0	1,479.5	378.0	140.2	518.2	93.35	145.60
1959 2/	1,617.0	8.0	1,625.0	341.7	95.0	436.7	71.80	106.35

1/ F.o.b. seaboard.

2/ Production and imports partly estimated.

While large supplies of tankage and meat meal were available in 1959-60, fish meal supplies were down substantially from the high level in 1958-59. Production and imports in 1959-60 totaled about 437,000 tons, 16 percent less than in 1958-59. Data are not reported on stocks of fish meal and there may have been a larger-than-normal carryover of fish meal into 1959-60 in the hands of producers and consumers. If there was greater-than-normal consumption from carryover stocks, this would reduce the extent of the indicated drop in consumption based only on production and imports.

Prices of both fish meal and meat meal declined during 1959-60. Reduced demand for poultry and hog feeds in 1959-60 contributed to the decline in prices of these feeds. The larger supply of meat meal and tankage, which more than offsets the reduction in fish meal, also was a bearish factor affecting animal protein feed prices. Fish meal prices dropped nearly 30 percent last year, much more than the decline in meat meal. This fall and winter prices of tankage and meat meal may average near last year's level, while fish meal probably will continue well below prices in that period of 1959-60. Later in the 1960-61 feeding year, supplies and demand for these feeds may reach a better balance, resulting in prices advancing from the relatively low levels this fall.

Supplies of Other Byproduct Feeds

Supplies of grain-protein feeds--gluten feed and meal, brewers' dried grains and distillers' dried grains--are not expected to change materially from those in 1959-60. Production of gluten feed and meal in 1959-60 totaled 1,136,000 tons, 9 percent above last year when production about equaled the 1954-58 average. Production of brewers' and distillers' dried grains were close to last year's output and a little above the 5-year average. Supplies of both these feeds have been fairly constant in recent years and no major change in supplies is in prospect for 1960-61.

Feeding of alfalfa meal in 1959-60 totaled 1,339,000 tons. In 1960-61, feeding may be expected to be about this large again. Use of antioxidants to stabilize the vitamin A content of alfalfa meal and adoption of lower cost inert gas storage have helped to broaden the market for alfalfa meal.

Molasses supply in 1960-61 is still somewhat uncertain because a large part of our imports come from Cuba. Imports usually account for about two-thirds of our molasses supply. Imports of molasses in 1959-60 are now estimated at 405 million gallons, considerably larger than in many recent years and exceeded only by the 433 million gallons imported in 1952-53. Prices of molasses were lower in 1959-60 than in any year since 1954-55, and larger supplies of molasses were available for feeding than in other recent years. However, it appears unlikely that all of the 33-percent increase in imports in 1959-60 over 1958-59 went directly into feed. Possibly a part of the increased imports went into stocks for which data are not available.

A buildup in molasses stocks would help to offset any potential cut in imports from Cuba, traditionally our largest supplier. Sometimes we draw on more distant countries, such as the Philippines, and these countries may supply more in 1960-61. Yet, at this time, it appears probable that our supply of molasses available for feeding in 1960-61 will be smaller than in other recent years.

Prices of blackstrap molasses declined to 14.1 cents per gallon, New York, in 1959-60, the lowest price since 1954-55. This was a decline of 20 percent from the 1954-58 average of 17.8 cents per gallon. In 1959-60, however, molasses prices were only slightly lower than average in relation to corn prices. During the past year the price per bushel of No. 3 corn at Chicago was equivalent in value to 7.5 gallons of molasses at New York, compared with the 1954-58 average of 7.3. The uncertain supply situation in prospect for 1960-61 could result in some strengthening of prices during the coming year.

High-Protein Feed Prices Expected
To Average a Little
Lower in 1960-61

Prices of high-protein feeds in 1960-61 are expected to average a little below the 1959-60 level. Supplies available for domestic use are expected to be larger and demand not so strong, especially in the first half of the feeding year. Fewer livestock and poultry on farms and reduced foreign demand are expected to result in lower high-protein feed prices this fall and winter than in the same period of 1959-60. Later in the feeding year increasing poultry numbers, along with increasing demand from hog producers in the first half of 1960, may bring a seasonal rise in high-protein feed prices in contrast with declining prices in 1959-60.

In the 1959-60 feeding year, the index of high-protein feed prices was 81 percent of the 1947-49 average, 6 percent lower than in 1958-59 and only a little above the postwar low of 1956-57. Prices rose 10 percent from September to January, then declined 12 percent from January to July. This is only about half the variation experienced in each of the 2 preceding years.

Prices of high-protein feeds in 1959-60 were strengthened by the heavy exports of oilseed meals. This surge in exports brought the total to around 837,000 tons for the 1959-60 feeding year, about 100,000 above the postwar high of 1955-56. A large portion of these exports were made in the first three or four months of the feeding year and were brought on by a late summer drought in Europe which reduced feed supplies. These heavy exports had an important bearing on the relatively high prices of oilseed meals during November-January last year.

Continued large supplies of cottonseed meal in 1960-61 and the prospect for smaller exports are expected to hold cottonseed meal prices below the year-earlier level through this fall and winter. For the entire feeding year, cottonseed meal prices probably will average a little lower than in 1959-60 when the price at Memphis averaged \$56.25 per ton.

Linseed meal prices have declined about 30 percent since last January when linseed meal was selling for a substantial premium over soybean meal. Heavy exports of linseed meal last fall and winter were largely responsible for the high prices a year ago. In October-January of 1959-60, 31 percent of the linseed meal production was exported, reducing the quantity available for domestic use substantially below other recent years. Exports are expected to be much smaller this year than last, and prices probably will average considerably lower than in 1959-60.

Soybean Meal Prices May Follow More
Nearly Normal Pattern in 1960-61

Soybean meal prices in 1960-61 probably will average a little below the 1959-60 level and are expected to return to a more nearly normal seasonal pattern. Prices this fall and winter probably will remain well below the high level reached in that period last year, since both domestic demand and exports are expected to be lower this winter than last. Later in the feeding year prices may advance above the late 1959-60 level, but they probably will average a little lower for the entire year. During the 1959-60 feeding year, soybean meal prices averaged \$55.55 per ton at Decatur, virtually the same as in 1958-59 but a little above the average of \$53.40 for 1957-58.

Strong export demand for oilseed meals in the fall and winter of 1959-60, and declining demand later in the year, accompanied by reduced domestic demand caused soybean meal prices to vary sharply from the normal seasonal pattern. The normal seasonal variation in soybean meal prices, bulk, Decatur, computed on the basis of prices during 1948-59, is shown on page 25. The index of seasonal variation, computed on the basis of prices during the 12-year period, rose 16 percent from a low of 94 in October to 110 in July. This steady 9-month rise was followed by a rather sharp decline from August to October as crushing of new-crop soybeans increased.

Seasonal variation in soybean meal prices during the year is caused by changes in both supply and demand. Production usually is heaviest in the fall and winter. It declines as the marketing year progresses. As soybean meal production declines, demand for hog and poultry feeds increases as consumption of these feeds increases during the spring and summer. Increasing production of soybeans in recent years and more uniform crushing during the marketing year may have a tendency to flatten the seasonal variation in soybean meal prices.

Comparison of High-Protein Feed Prices

Prices of a number of high-protein feeds are compared with prices of soybean meal in table 18. During October, the first month of the 1960-61 feeding year, prices of cottonseed and linseed meal were in about the same relation to soybean meal as during 1954-58. However, the price of distillers' and brewers' dried grains were somewhat higher in relation to soybean meal than

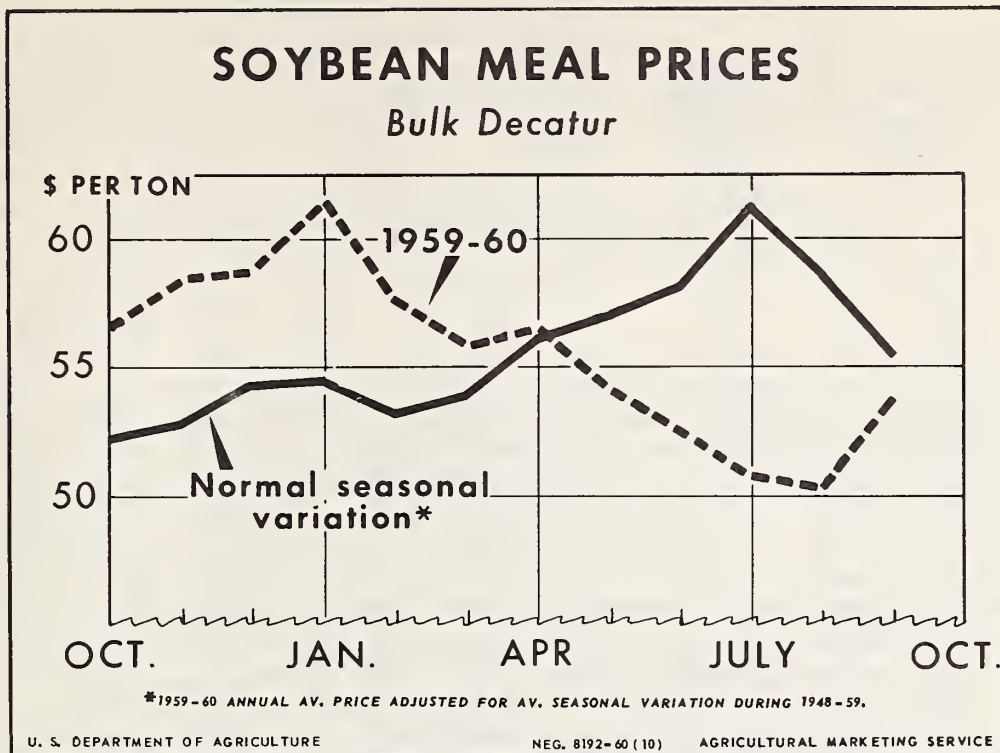


Table 16.- Soybean meal prices: Index of seasonal variation and wholesale at Decatur, by months, year beginning October 1956-59

Month	: Index of :	Price of soybean meal per ton (Decatur, bulk)					
	: seasonal :	:	:	:	: 1959-60 :	:	:
	: variation :	1956-57	1957-58	1958-59	: Actual :	Seasonally	1960-61
	: 1/ :	:	:	:	: adjusted :	:	:
	: Pct. :	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
October	: 93.7 :	45.70	46.60	50.60	56.60	52.05	48.95
November	: 95.0 :	47.40	45.00	54.75	58.50	52.75	
December	: 97.5 :	46.95	43.90	60.90	58.70	54.15	
January	: 97.9 :	49.90	43.75	63.25	61.50	54.40	
February	: 95.6 :	46.90	46.90	54.75	57.50	53.10	
March	: 96.9 :	46.75	54.25	55.10	55.85	53.85	
April	: 101.0 :	45.50	59.50	55.90	56.50	56.10	
May	: 102.6 :	45.40	55.60	55.40	54.20	57.00	
June	: 104.4 :	44.25	56.75	54.80	52.50	58.00	
July	: 110.3 :	46.60	68.60	58.50	50.75	61.25	
August	: 105.3 :	52.90	60.25	54.25	50.30	58.50	
September	: 99.8 :	51.00	59.70	51.70	53.75	55.45	
Average	: 100.0 :	47.45	53.40	55.80	55.55	55.55	

1/ Computed on the basis of monthly average prices during the calendar years 1948-59.

Table 17.- Prices of specified byproduct feeds, weekly
July-October 1959 and 1960 1/

Period		Soybean meal, 44 percent protein, Decatur		Cottonseed meal, 41 percent protein, Memphis		Linseed meal, 34 percent protein, Minneapolis		Meat meal, 50 percent protein, Chicago		Fish meal, 60 percent protein, Buffalo 2/		Middlings, standard Minneapolis	
		1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960
		Dol. per ton	Dol. per ton	Dol. per ton	Dol. per ton	Dol. per ton	Dol. per ton	Dol. per ton	Dol. per ton	Dol. per ton	Dol. per ton	Dol. per ton	Dol. per ton
July	5	59.50	52.50	62.00	57.00	63.00	52.50	88.75	71.25	129.00	92.00	31.00	32.00
	12	60.00	51.00	62.50	54.50	62.00	52.50	88.75	71.25	129.00	92.00	32.50	32.00
	19	59.00	49.50	64.50	54.50	61.50	52.00	86.25	71.25	129.00	92.00	32.00	33.50
Aug.	26	55.50	50.00	67.50	55.50	61.50	51.50	85.00	71.25	129.00	89.00	33.00	32.50
	2	54.00	51.50	---	56.50	61.00	53.00	81.25	72.50	129.00	89.00	32.50	32.00
	9	54.00	50.00	---	59.00	62.50	53.50	78.75	72.50	129.00	89.00	29.00	31.00
Sept.	16	54.50	47.00	52.00	57.00	64.50	53.00	75.00	71.25	129.00	92.00	27.00	28.00
	23	54.50	49.50	50.50	58.00	64.50	53.00	75.00	71.25	129.00	89.00	27.50	26.50
	30	51.50	53.50	51.50	58.00	65.50	53.00	77.50	68.75	129.00	89.00	26.50	26.50
Oct.	6	53.00	55.25	51.00	54.00	66.00	53.00	76.25	68.75	129.00	89.00	26.50	27.00
	13	51.50	54.75	52.00	51.50	66.00	51.50	76.25	68.75	125.00	89.00	26.50	30.00
	20	49.50	53.00	51.50	53.00	65.00	50.50	76.25	68.75	125.00	89.00	28.50	28.50
Oct.	27	53.00	52.00	53.00	52.00	66.00	50.50	76.25	68.75	125.00	89.00	32.00	27.50
	4	55.00	49.50	53.00	51.50	66.00	50.00	75.00	67.50	125.00	89.00	34.00	29.00
	11	57.50	49.00	58.50	51.00	70.00	49.50	72.50	67.50	125.00	89.00	31.00	32.00
Oct.	18	56.50	48.50	60.00	53.50	70.50	51.00	71.90	65.85	125.00	89.00	30.00	30.50
	25	57.50	48.75	62.00	55.00	70.50	51.50	68.75	65.85	125.00	89.00	32.50	33.00

1/ Wholesale prices, bulk. Prices are for Tuesday of each week. 2/ F.o.b. seaboard.

Table 18.- Prices of specified high-protein feeds, wholesale, bulk in relation to soybean meal, October 1960, with comparisons

Feed	Market	Year beginning October				Percent of price of soybean meal			
					October				
		1954-58:	1958-59	1959-60	1960	1954-58:	1958-59	1959-60	October
		average				average			1960
		Dol.	Dol.	Dol.	Dol.	Pct.	Pct.	Pct.	Pct.
		per	per	per	per				
		ton	ton	ton	ton				
Soybean meal	Decatur	54.00	55.80	55.55	48.95	100	100	100	100
Cottonseed meal	Memphis	55.95	59.45	56.25	52.75	104	107	101	108
Linseed meal	Minneapolis	56.70	66.40	60.10	50.50	105	119	108	103
Meat meal	Chicago	79.50	93.35	71.80	66.70	147	167	129	136
Fish meal	Buffalo	136.10	145.60	106.35	89.00	252	261	191	182
Gluten feed	Chicago	40.80	39.30	37.65	36.50	76	70	68	75
Distillers' dried grains	Cincinnati	52.95	50.20	50.50	52.50	98	90	91	107
Brewers' dried grains	Milwaukee	42.35	41.65	38.35	44.25	78	75	69	90

during this 5-year period, while the price of meat meal was a little lower. The most notable price change in relationship with soybean meal was for fish meal. In October, fish meal prices at Buffalo averaged 182 percent of soybean meal at Decatur, much lower than the 1954-58 average of 252 percent.

PROSPECTS FOR HAY SUPPLIES AND PRICES IN 1960-61

Hay Supplies a Little Below 1959-60 Level

The total hay supply for 1960-61 is about 2 percent smaller than last year, but a little larger than the 1954-58 average. The hay crop improved during August and September and 1960 production was estimated on October 1 at 118.7 million tons, 6 million tons more than in 1959 and within 3 percent of the record output in 1958. The larger hay crop than in 1959, however, was more than offset by a sharp drop in the May 1 carryover. The total hay supply was estimated in October at 136 million tons, 2.5 million tons less than in 1959, but 3.3 million tons above the 1954-58 average. Increasing cattle numbers in recent years have reduced the supply of hay per roughage-consuming animal unit. It is estimated that 102.5 million roughage-consuming animal units will be on farms in 1960-61, 3 percent more than a year earlier and a rise of more than 10 percent in the last 3 years. The supply of hay per animal unit of 1.33 tons is 4 percent below last year and 5 percent below the 5-year average.

Weather this fall has been favorable for pastures and ranges over most of the country. This has reduced the need for early fall feeding of hay and other forages. Pasture conditions throughout summer and early fall have been above average. On October 1, pastures for the entire country averaged 78 percent of normal, 2 percentage points higher than a year earlier and 5 percentage points higher than the 1949-58 average. Pastures were especially good in nearly all of the Eastern and Southern States, and were near average or above in most Midwestern States. Missouri, the major exception, suffered severe drought that reduced growth. Pastures and ranges in most of the mountain States were below average.

Hay Supplies Ample in Midwest, But Below Average in The South and West

Generally favorable weather for hay crops this year has resulted in ample hay supplies in most of the North Central States. In the East North Central region hay supplies are above average, both in total and per animal unit (table 20). Supplies in the West North Central region also are above average in total, but below average in relation to the roughage-consuming livestock, which has been increasing in this area during the last 4 years. Hay supplies are fully adequate in the North Atlantic region where the 1960-61 supply totals 15.3 million tons, about the same as last year and 10 percent above the 1954-58 average. Supplies in this area are above average per animal unit, though they are a little below the big supplies per animal in 1958 and 1959. In the South

Table 19.- Hay supply and disappearance per animal unit,
United States, average 1954-58, annual 1955-60

Year beginning May	Produc- tion	Carryover May 1	Total supply	Disap- pearance	Roughage- consuming animal units	Supply per animal unit	Disap- pearance per animal unit
	1,000 tons	1,000 tons	1,000 tons	1,000 tons	Thousands	Tons	Tons
Average							
1954-58	114,409	18,302	132,711	112,364	94,659	1.40	1.19
1955	112,737	15,290	128,027	111,499	96,036	1.33	1.16
1956	108,680	16,528	125,208	107,525	93,364	1.34	1.15
1957	120,977	17,683	138,660	112,291	92,366	1.50	1.22
1958	121,819	26,369	148,188	122,321	95,378	1.55	1.28
1959	112,764	25,867	138,631	121,285	99,638	1.39	1.22
1960 <u>1/</u>	118,749	17,346	136,095		102,500	1.33	

1/ Preliminary, based on indications in October.Table 20.- Hay supplies: Total and per animal unit, by regions,
average 1954-58, annual 1955-60

Year	Supply <u>1/</u>	Roughage- consuming animal units	Supply per animal unit	Supply <u>1/</u>	Roughage- consuming animal units	Supply per animal unit
	1,000 tons	Thousands	Tons	1,000 tons	Thousands	Tons
North Atlantic Region			South Atlantic Region			
Average						
1954-58	13,898	5,601	2.48	6,735	7,036	.96
1955	13,698	5,738	2.39	6,980	7,036	.99
1956	13,720	5,640	2.43	6,845	7,047	.97
1957	13,494	5,437	2.48	6,532	7,016	.93
1958	14,722	5,380	2.74	7,326	6,953	1.05
1959 <u>2/</u>	15,232	5,496	2.77	7,487	7,244	1.03
1960 <u>3/</u>	15,256	5,657	2.70	6,660	7,455	.89
East North Central Region			West North Central Region			
Average						
1954-58	27,520	13,945	1.97	44,883	26,448	1.70
1955	27,430	14,163	1.94	41,653	26,712	1.56
1956	28,087	14,163	1.98	38,813	25,631	1.51
1957	28,443	13,728	2.07	48,558	25,801	1.88
1958	27,035	13,607	1.99	53,745	27,174	1.98
1959 <u>2/</u>	28,545	13,940	2.05	45,259	28,154	1.61
1960 <u>3/</u>	28,552	14,346	1.99	46,135	28,974	1.59
South Central Region			Western Region			
Average						
1954-58	13,007	22,278	.58	26,668	19,351	1.38
1955	13,468	22,710	.59	24,798	19,677	1.26
1956	11,902	21,809	.55	25,841	19,074	1.35
1957	13,518	21,567	.63	28,115	18,817	1.49
1958	15,615	22,552	.69	29,745	19,712	1.51
1959 <u>2/</u>	14,795	24,051	.62	27,313	20,753	1.32
1960 <u>3/</u>	12,701	24,751	.51	26,791	21,359	1.25

1/ Production plus farm stocks on May 1. 2/ Preliminary. 3/ Preliminary, based on October indications. For State breakdown of regions see table 7.

and in the Western States drought reduced hay supplies in scattered areas, bringing total supplies for these regions somewhat below those of a year earlier. Supplies in the South Atlantic region are 11 percent smaller than last year in total and 14 percent smaller in relation to the number of livestock to be fed in this region. Supplies are down 14 percent from last year in the South Central region. Production in the Western region was a little below last year's level, but slightly above the 1954-58 average. Increasing number of livestock in this region, however, resulted in the 1960-61 supply falling about 9 percent below average in relation to the number of roughage-consuming livestock on farms.

Table 21.--Hay: Average price per ton received by farmers, by regions, October 1960 with comparisons

Region	October			1960			
	Average	1958	1959	July	Aug.	Sept.	Oct.
	1954-58						
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
New England	29.95	30.20	30.10	28.10	27.30	27.10	27.90
Middle Atlantic	24.85	23.70	22.90	22.10	22.00	22.20	22.10
East North Central	19.90	20.60	18.50	18.10	18.40	17.60	18.20
West North Central	15.70	12.20	16.90	14.60	14.90	15.50	16.10
South Atlantic	30.15	27.70	27.30	27.30	27.50	27.90	29.00
East South Central	22.75	21.30	21.20	23.00	22.80	23.20	23.70
West South Central	23.10	18.10	19.20	20.40	20.80	21.10	21.50
Mountain	19.75	16.30	23.60	23.20	23.80	24.30	24.70
Pacific	22.50	20.40	25.20	22.80	22.40	22.60	23.10
United States	20.15	18.00	20.50	19.20	19.50	19.60	20.20

Hay Prices May Average Near
1959-60 Level

Hay prices this fall have been close to those of a year earlier and they may average near the 1959-60 level in the 1960-61 feeding year. In mid-October the average price received by farmers for hay for the entire country was \$20.20 per ton, only 30 cents per ton lower than a year ago. The larger hay supplies in the North Central and North Atlantic States probably will result in hay prices in these regions averaging a little below those of a year earlier. In the New England States hay prices in mid-October averaged \$2.20 less than a year ago. In the Middle Atlantic States prices averaged 80 cents per ton lower, (table 21). Hay prices in the North Central regions also were slightly lower than a year ago. But because of relatively shorter hay supplies in the Southern and the Mountain regions, hay prices in these regions averaged \$1.10 to \$2.50 per ton above those of a year earlier.

GOVERNMENT FEED GRAIN PROGRAMS

1960 Corn Support \$1.06 Per
Bushel; 65 Percent of Parity

The national average support price for 1960 corn was set at \$1.06 per bushel, based on 65 percent of the parity price at the time the minimum level for the support was announced last February. This is 6 cents below the 1959 support of \$1.12 per bushel which was based on 90 percent of the average price for the 3 preceding calendar years. Under the Agricultural Act of 1958, the support price is based on 90 percent of the previous 3-year average, but not less than 65 percent of parity.

Under present legislation it appears likely that the support level for 1961-crop corn will again be based on 65 percent of the parity price, which is expected to be above 90 percent of the 3-year average. The parity price for corn is the modernized parity which is adjusted each year on the basis of the change in the 10-year average price received by farmers for corn relative to the 10-year average of prices received for all commodities. Present indications are that this adjustment for 1961, based on the relationship of prices in 10 calendar years 1951-60, will be such as to lower the parity price of corn in 1961 slightly below the level early in 1960. In this event, there would be a comparable reduction in the 1961 support level, assuming it will again be based on 65 percent of the parity price early in the 1961 calendar year.

Less Feed Grain Going Under
Price Support; Deliveries
To CCC Down

The price supports for 1960 oats, barley and sorghum grain are the same as for the 1959 crops, when they were dropped considerably from the 1958 levels. The total quantity of these three feed grains placed under price support in 1959-60 was down sharply from the quantities in 1958-59 (table 22). Substantially more corn was placed under price support in 1959-60 than in 1958-59, but the total of all 4 feed grains dropped from 22.3 million tons in 1958-59 to 19.1 million tons in 1959-60. It is estimated that over 14 million tons of this total will be delivered to CCC, including allowance for deliveries from grain still held in the resale program, 2 million less than deliveries from the 1958 crops.

The 529 million bushels of 1959 corn placed under price support was 39 percent more than in 1958-59. Farmers are expected eventually to deliver over 400 million bushels of 1959-crop corn to CCC. This quantity of corn would be much larger than deliveries from the smaller crops of 1957 and 1958.

Table 22- Feed grains: Price support operations, United States, 1956-60

Crop year	National average price support	Average price received by farmers 1/	Difference:	Quantity placed under price support			Total deliveries to CCC
				Loans 2/	Purchase agreements	Total	
	Dol. per bu.	Dol. per bu.	Dol. per bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.
Corn							
1956							
High 4/	1.50	1.21	- .29	318	59	377	3/380
Low 5/	1.25	1.21	- .04	83	17	100	3/ 94
Total				401	76	477	3/474
1957							
High 4/	1.40	1.02	- .38	193	36	229	3/215
Low 5/	1.10	1.02	- .08	127	13	140	3/ 45
Total				320	49	369	3/260
1958							
High 4/	1.36	1.05	- .31	200	28	228	3/225
Low 5/	1.06	1.05	- .01	144	9	153	3/ 20
Total				344	37	381	3/245
1959	1.12	1.00	- .12	481	48	529	3/420
1960	1.06						
Oats							
1956	.65	.69	.04	34	2	36	18
1957	.61	.61	.00	47	14	61	3/43
1958	.61	.58	- .03	69	15	84	3/51
1959	.50	.64	.14	8	6/	8	6/
1960	.50						
Barley							
1956	1.02	.99	- .03	63	14	77	64
1957	.95	.89	- .06	119	23	142	3/121
1958	.93	.90	- .03	87	20	107	3/ 70
1959	.77	.85	.08	34	7	41	3/ 12
1960	.77						
Sorghum grain							
	Dol. per cwt.	Dol. per cwt.	Dol. per cwt.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.
1956	1.97	2.05	.08	39	1	40	32
1957	1.86	1.74	- .12	277	16	293	3/279
1958	1.83	1.78	- .07	264	12	276	3/256
1959	1.52	1.54	.02	106	9	115	3/ 99
1960	1.52						

1/ Average price received by farmers during November-May for corn; season average price for other feed grains weighted by sales.

2/ Excludes purchase agreement grain converted to loans in the following year.

3/ Partly estimated, includes an allowance for grain under loan or purchase agreement that is expected to eventually be delivered to CCC and over deliveries as determined by final measurement of grain when delivered to CCC.

4/ Support prices and operations for farmers complying with their acreage allotments. Includes corn going under price support in noncommercial area.

5/ Support prices and operations for noncomplying farmers.

6/ Less than 500,000 bushels.

Compiled from reports of Commodity Stabilization Service.

Deliveries from the 1959 crops of oats, barley and sorghum grain dropped off sharply from the preceding year. Lower supports and smaller crops of these grains in 1959 than in 1958 were largely responsible for the drop in price support activity.

Feed Grain Price Support

Activity Through September

The quantities of 1960 oats, barley and sorghum grain placed under price support are expected again to be substantially below the high levels reached in 1957 and 1958. Through September, farmers had placed 7.3 million bushels of oats under loan and purchase agreement, about 3 million more than the small quantity in the same period of 1959. The 20.4 million bushels of barley placed under price support was a little more than the small quantity of a year earlier, while the quantity of sorghum grain was less than a year earlier.

Table 23.--Oats, barley, and sorghum grain placed under price support, United States, through September 30, 1959 and 1960

Grain	1959			1960		
	Loan	Purchase agreement	Total	Loan	Purchase agreement	Total
	1,000	1,000	1,000	1,000	1,000	1,000
	<u>bu.</u>	<u>bu.</u>	<u>bu.</u>	<u>bu.</u>	<u>bu.</u>	<u>bu.</u>
Oats	4,477	25	4,502	7,280	29	7,309
Barley	16,996	140	17,136	20,296	90	20,386
Sorghum grain	11,801	2	11,803	8,171	1	8,172

Compiled from reports of the Commodity Stabilization Service.

Large Part of Feed Grain Carryover

Under The Price Support Program

The total quantity of corn owned by CCC, or under loan, has increased steadily in recent years. Practically all of the 7 million-ton increase in carryover from 1959 to 1960 was Government stocks, bringing the total carryover under the Government program to 65 million tons or 87 percent of total stocks (table 24). Stocks outside the Government program in recent years have held constant at only about 10 million tons. Stocks of corn under the Government program on October 1 are now estimated at about 1,650 million bushels, 255 million

more than a year earlier. Two-thirds of the 619 million bushels of corn at CCC bin sites was 4 years old or over (table 26). The quantity of sorghum grain under the Government program increased from 500 million bushels on October 1, 1959 to 565 million on October 1, 1960. The quantities of oats and barley in Government stocks, on the other hand, were substantially smaller on July 1 this year than a year earlier.

Table 24.- Feed grains: Carryover, Government stocks and total, United States, 1959 and 1960

Grain	Unit	1959			1960 <u>2/</u>		
		Govern- ment stocks 1/	Other	Total	Govern- ment stocks 1/	Other	Total
Corn, Oct. 1	:Mil. bu.	: 1,395	135	1,530	1,650	149	1,799
Oats, July 1	: "	: 88	280	368	35	235	270
Barley, July 1	: "	: 141	54	195	102	65	167
Sorghum grain, Oct. 1	: "	: 500	10	510	565	16	581
Total	:Mil. tons:	: 57.9	9.8	67.7	65.0	10.0	75.0

1/ Owned by CCC and old grain under loan. Includes an allowance for purchase agreement deliveries from preceding crop of corn after October 1 and oats and barley after July 1.

2/ Preliminary.

For earlier years see Feed Situation, Fds-175, May 1959 and Fds-178, Nov. 1959.

CCC Sales of Feed Grains Down in 1959-60

Total sales of feed grains for domestic use and export were generally lower in 1959-60 than in 1958-59. Sales of corn by CCC totaled about 145 million bushels during the 1959-60 marketing year, much less than the 227 million bushels sold in 1958-59. Sales into the domestic market totaled about 111 million bushels, 52 million less than in 1958-59 (table 25). Domestic sales of corn were substantially smaller than a year earlier in the first half of the 1959-60 marketing year, but increased during the spring of 1960 as substantial quantities of low quality corn were sold. Domestic sales of CCC oats and barley in 1959-60 were larger than in 1958-59, reflecting lower domestic sale prices. Sorghum grain sales, however, were only about half those in 1958-59.

Table 25.- Feed grains: Commodity Credit Corporation sales for domestic use and export, by quarters, 1957-59 1/

Year	October-December		January-March		April-June		July-September		October-September	
beginning:	:	:	:	:	:	:	:	:	:	:
October	Domestic	Export	Domestic	Export	Domestic	Export	Domestic	Export	Domestic	Export
:	:	:	:	:	:	:	:	:	:	:
:	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
:	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.
Corn										
1957	21,166	49,239	15,675	47,911	13,092	36,329	27,251	6,757	77,184	140,236
1958	47,536	13,623	37,828	22,941	59,245	20,719	18,101	6,761	162,710	64,044
1959	22,212	8,346	15,881	10,787	55,269	8,938	17,370	6,615	110,732	34,686
Oats										
1957	514	6,045	476	6,951	914	9,496	1,030	4,131	2,934	26,623
1958	493	997	588	2,072	1,078	3,535	16,580	2,644	18,739	9,248
1959	13,222	79	6,793	1,199	5,483	87	3,072	3	28,570	1,368
Barley										
1957	1,142	16,072	678	28,373	1,068	33,592	600	15,287	3,488	93,324
1958	809	1,632	2,042	635	1,268	13,250	14,132	11,331	18,251	26,848
1959	14,358	5,562	1,782	3,219	951	7,662	2,159	5,293	19,250	21,736
Sorghum grain										
1957	1,035	4,229	472	12,212	3,689	17,467	5,993	11,077	11,189	44,985
1958	2,926	3,991	1,349	10,797	5,339	14,277	8,665	3,751	18,279	32,816
1959	2,090	7,620	881	1,584	2,372	2,807	3,598	5,441	8,941	17,452

1/ Domestic sales include fire, theft and spoilage, in addition to domestic sales and donations. Export sales include international barter. P.L. 480 program, donations, ICA transfers, as well as cash sales and sales under the payment-in-kind program.

Compiled from reports of Fiscal Division, Commodity Stabilization Service.

Table 26.- Corn: Stocks owned by CCC at bin sites by year of production, October 1, 1960

State	1954 and Prior	1955	1956	1957	1958	1959	Total
:	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.
Colorado	4	---	11	397	---	92	504
Illinois	9,562	25,143	46,376	19,679	17,565	28,009	146,334
Indiana	2,448	5,117	13,557	4,466	3,148	6,866	35,602
Iowa	84,522	35,780	44,399	12,995	11,028	26,211	214,935
Kansas	3,515	402	405	800	985	3,405	9,512
Michigan	3,297	1,931	2,872	1,140	885	1,641	11,766
Missouri	4,432	1,715	3,102	810	767	2,333	13,159
Minnesota	10,333	18,267	23,546	3,501	3,596	7,221	66,464
Nebraska	19,026	1,161	3,603	3,810	2,085	33,240	62,925
North Dakota	127	232	490	641	115	44	1,649
Ohio	946	1,724	2,939	682	877	2,352	9,520
South Dakota	27,507	4,212	4,321	3,111	734	1,378	41,263
Wisconsin	2,409	679	1,722	237	80	496	5,623
Total	168,128	96,363	147,343	52,269	41,865	113,288	1,619,256

1/ The difference between this total and the total of 599,043 in table 37 represents grain received at bin sites for which inventory documents had not been received at the State offices.

Commodity Stabilization Service, Grain Division.

Export sales of each of the four feed grains were smaller than those in 1958-59. Deliveries to exporters under the payment-in-kind program were much smaller than in 1958-59. Lower domestic feed grain prices in 1959-60, in relation to world prices, resulted in smaller average payments per bushel to exporters under the payment-in-kind program. Because payments per bushel were lower more of the grain exported under this program came from the commercial market, and less from CCC stocks, than in 1958-59. Substantial quantities of oats and relatively smaller quantities of the other feed grains were exported from commercial market without Government assistance.

FOREIGN TRADE IN FEED GRAINS

Feed Grain Exports May be A Little Lower in 1960-61

Exports of feed grains in the 1960-61 marketing year are expected to decline a little from the record high reached in 1959-60. Smaller exports are expected in view of the larger supplies of grain and other feed for livestock feeding in Western Europe, our principal market for feed grains. The barley crop in Western Europe this year is 6 percent larger than in 1959 and the oat crop is up 5 percent. A substantial part of the wheat crop of Western European countries is of low quality which will add to their domestic feed supply. Forage supplies in the northern European countries are much larger this fall than last year when drought seriously curtailed growth of hay crops and pasture. The quantity of oats exported probably will be down considerable from the 45 million bushels exported in 1959-60. Barley exports probably will be a little below the record exports in 1959-60, while corn and sorghum grain exports may be near last year's level. Combined exports of the four feed grains in 1960-61 are expected to total around 12.0 million tons, 5 percent less than in 1959-60.

Feed Grain Exports Under Government Programs

Most of the feed grain exports in the post-war years have been made with the assistance of Government programs. During the last few years, the quantity of feed grains exported from Government stocks has been declining and an increasing percentage has come from commercial channels. Domestic feed grain prices in 1959-60 were near world market levels, and substantial quantities of feed grains were exported without Government assistance, or with payment of only a few cents per bushel under the payment-in-kind program.

The breakdown of exports by Government programs is shown in table 27 for the fiscal years 1958-59 and 1959-60. In 1959-60 a total of 3,412,000 tons of feed grains were exported under Public Law 480 and an additional 314,000 tons under the Mutual Security Program-- Public Law 665, Section 402. Exports under these programs accounted for 29 percent of the total tonnage exported in 1959-60. Most remaining exports came from commercial channels and were sold under the payment-in-kind program.

Table 27.- Feed grains: United States exports, by countries of destination, 1957-59 1/

Country	Corn, including seed			Country	Sorghum grain		
	October-September				October-September		
	1957-58	1958-59	1959-60 2/		1957-58	1958-59	1959-60 2/
	1,000 bu.	1,000 bu.	1,000 bu.		1,000 bu.	1,000 bu.	1,000 bu.
Canada	11,465	20,783	23,576	Sweden	473	1,795	1,147
Mexico	40,196	2,524	777	Norway	2,982	2,905	3,542
Uruguay	---	755	2,872	Denmark	3,218	10,060	8,080
Norway	1,694	2,424	1,842	United Kingdom	9,201	21,008	14,534
Denmark	403	1,384	1,905	Greece	---	628	84
United Kingdom	49,742	79,808	71,223	Netherlands	10,604	21,372	21,944
Ireland	201	1,675	3,525	Belgium and Luxembourg	11,259	19,863	23,019
Netherlands	20,842	31,474	32,882	West Germany	2,427	7,412	8,598
Belgium and Luxembourg	12,490	12,061	12,462	Poland	792	---	2,401
West Germany	5,048	12,520	17,354	Israel	9,792	6,624	9,492
Austria	6,891	5,900	7,057	Jordan	386	780	---
Italy	1,726	4,988	411	Libya	---	551	157
Greece	3,763	1,525	2,537	Ethiopia	---	1,038	197
Poland	1,940	---	2,266	India	2,265	1,256	---
Israel	1,312	2,946	3,680	Korea	710	1,045	---
Egypt	---	1,966	2,446	Japan	---	647	1,893
India	---	4,854	4,309	Other	3,177	2,811	3,412
Japan	12,926	15,077	7,708				
Other	11,750	10,628	10,796				
Total	182,389	213,292	209,628	Total	57,286	99,795	98,500
	Barley				Oats		
Country	July-June			Country	July-June		
	1957-58	1958-59	1959-60 2/		1957-58	1958-59	1959-60 2/
	1,000 bu.	1,000 bu.	1,000 bu.		1,000 bu.	1,000 bu.	1,000 bu.
Mexico	1,430	1,701	1,612	Mexico	373	154	17
Uruguay	---	---	2,990	Panama	9	23	4
Denmark	1,638	5,071	4,625	Cuba	370	385	189
United Kingdom	16,757	2,130	3,085	Trinidad	---	27	24
Netherlands	11,812	26,788	21,278	Sweden	---	741	1,831
Belgium and Luxembourg	13,663	13,263	6,807	Norway	---	136	---
West Germany	6,696	21,915	23,705	Denmark	---	603	914
Austria	39	967	4,143	United Kingdom	3,646	790	140
Switzerland	2,093	1,148	1,325	Netherlands	11,104	16,806	23,365
Poland	4,150	5,476	15,962	Belgium and Luxembourg	8,949	4,558	2,124
Spain	710	4,854	3,416	West Germany	44	3,622	12,741
Italy	612	1,886	1,434	Switzerland	260	532	1,295
Israel	887	1,470	1,377	Finland	---	186	10
Syria	---	---	3,171	Italy	---	429	261
Lebanon	---	227	2,415	Greece	784	762	---
Korea	9,847	7,113	---				
Japan	14,475	15,302	2,679	Other	45	81	487
Other	1,952	2,923	14,216				
Total	86,761	112,234	114,240	Total	25,584	29,835	43,402

1/ Exports as grain only. Does not include corn exported under the food for relief or charity program. 2/ Preliminary.

Foreign Agricultural Service, Grain Division.

Table 28.- Feed grains: Total exports and exports under Government Programs, United States, July-June 1958-59 and 1959-60

Program	Corn		Oats		Barley		Sorghum grain		Total four feed grains	
	1958-	1959-	1958-	1959-	1958-	1959-	1958-	1959-	1958-	1959-
	59	60	59	60	59	60	59	60	59	60
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	tons	tons
Public Law 480										
Title I 1/	23,682	20,745	413	---	19,753	28,139	14,648	9,903	1,554	1,533
Title II 2/	1,661	1,130	---	---	637	2,029	1,593	1,377	106	119
Title III										
Foreign Donations	9,451	10,666	---	---	---	---	---	---	265	299
Barter	14,527	27,164	2,262	1,177	1,758	14,819	7,879	11,645	706	1,461
Total	49,321	59,705	2,675	1,177	22,148	44,987	24,120	22,925	2,631	3,412
Public Law 665										
Section 402 3/	201	6,341	419	---	---	4,924	138	646	16	314
Other exports 4/	169,453	167,085	28,798	44,174	94,537	68,238	70,317	75,270	9,443	9,130
Total 5/	218,975	233,131	31,892	45,351	116,685	118,149	94,575	98,841	12,090	12,856
Deliveries from CCC										
stocks under the										
payment-in-kind pro-										
gram 6/	24,962	8,864	4,034	3,136	9,382	14,149	4,694	6,126	1,120	809

1/ Sales for foreign currency.

2/ Famine and other emergency relief.

3/ Mutual Security programs: Sales for foreign currency and economic aid.

4/ Principally grain exported from commercial channels under the payment-in-kind program, but includes some unassisted commercial sales for export, as well as exports under other types of Government programs.

5/ Total exports including grain equivalent of products.

6/ Total deliveries from CCC stocks to exporters for exports under the payment-in-kind program, including payments for exports under P. L. 480.

Compiled from reports of Foreign Agricultural Service and Commodity Stabilization Service.

Table 29.- World feed grain exports, by major sources, July-June, average 1951-55 and annual 1955-59

Country	Average	1955-56	1956-57	1957-58	1958-59	1959-60
	1951-55					1/
	1,000	1,000	1,000	1,000	1,000	1,000
	short	short	short	short	short	short
	tons	tons	tons	tons	tons	tons
United States	5,003	8,469	7,024	9,301	12,090	12,856
Canada	2,866	1,776	2,397	2,375	2,309	1,540
Argentina	1,720	1,378	2,297	2,517	3,154	4,357
Australia	726	742	854	544	1,194	950
Union of South						
Africa	259	927	960	1,423	1,096	500
France	65	51	1,770	764	139	502
U.S.S.R.	543	176	1,535	534	830	2/
Other countries	3,726	3,813	2,650	3,739	3,664	4,295
Total	14,908	17,332	19,487	21,197	24,476	3/25,000

1/ Preliminary.

2/ Included in other countries.

3/ Foreign Agricultural Service estimate.

Foreign Agricultural Service, Grain Division.

More than two-thirds of our corn and sorghum grain, more than nine-tenths of our oats and about half of our barley came from commercial channels in 1959-60. While some of this grain was exported without Government assistance, a large proportion was subsidized through payments from Government stocks under the payment-in-kind program.

Export Payments Under The
Payment-In-Kind Program
Lower in 1959-60

Government payments for feed grains exported under the payment-in-kind program averaged much lower in 1959-60 than in 1958-59. Lower prices for corn and sorghum grain in relation to world prices for feed grains resulted in domestic market prices averaging close to prices in foreign markets. The average payment on corn exported was 5.3 cents per bushel, less than half as much as in 1958-59. Average payments on the other 3 grains also were much lower than in 1958-59. Substantial quantities of corn and sorghum grain were exported with payments of only 1 to 3 cents per bushel. The payment-in-kind program for oats was discontinued on March 28, 1960, as a result of the smaller 1959-60 supply and declining CCC stocks.

Table 30.--Feed grain exports under the payment-in-kind program and average payments, July-June 1958-59 and 1959-60

Grain	1958-59		1959-60	
	Quantity	Average	Quantity	Average
	exported	payment	exported	payment
	1,000 bu.	Cents per bu.	1,000 bu.	Cents per bu.
Corn	149,547	11.6	168,725	5.3
Oats	26,743	12.7	32,375	7.1
Barley	88,154	15.7	76,968	6.9
Sorghum grain	64,624	20.0	83,656	5.0

Compiled from reports of Commodity Stabilization Service.

Europe Major Market For
United States Feed Grains

Western Europe was again the principal market for feed grains exported from the United States in 1959-60. Over three-fourths of each of the four feed grains exported went to countries in Western Europe. The United Kingdom and

the Netherlands were leading importers of United States feed grains. In 1959-60 each of these countries imported about 2.5 million tons of United States feed grains. Together, the two countries took about 40 percent of our total exports. A total of nearly 10 million tons of feed grains went to countries in Western Europe-- about 80 percent of our total exports. Larger supplies of feed grains and forages in Western Europe this year are expected to reduce the demand for United States feed grains in this area in 1960-61.

Canada was our leading importer outside of Europe, taking about 24 million bushels of corn or about 11 percent of our total corn exports. Israel, Japan and India also imported sizable quantities of feed grains from the United States, but total imports to these three countries were only about 5 percent of the total United States exports.

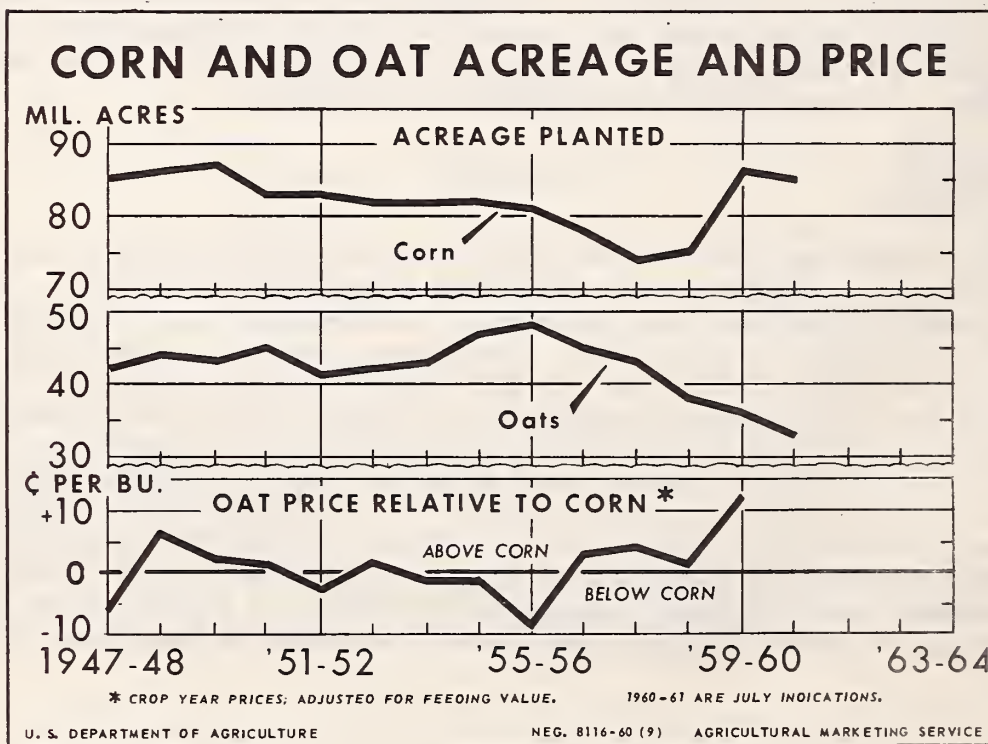
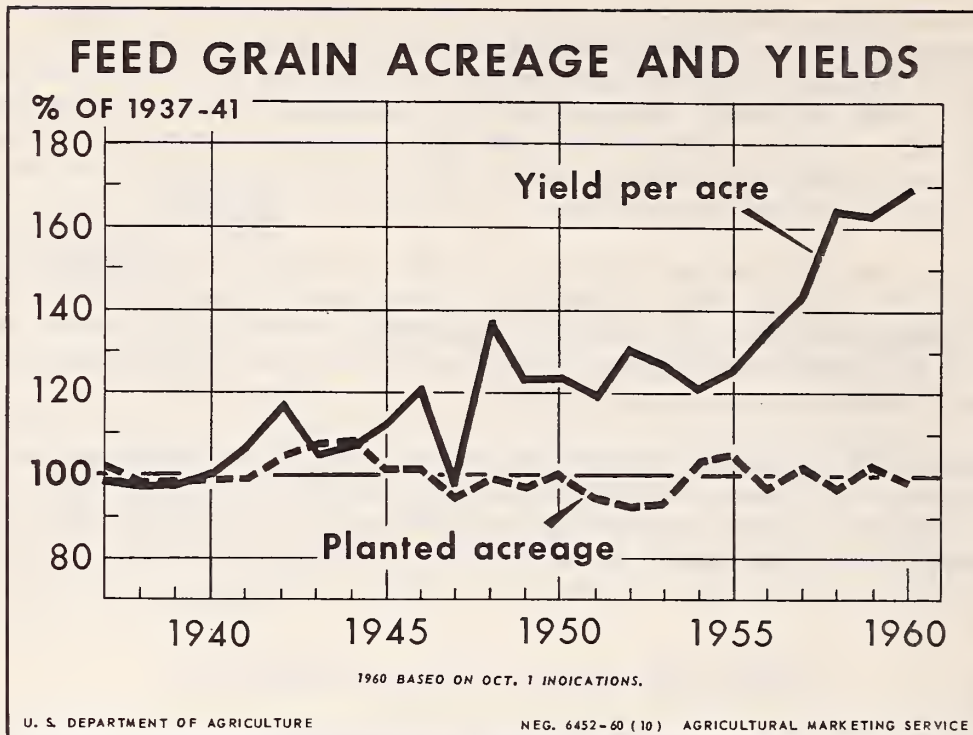
United States has increased its share of total world exports of feed grains in the past 10 years. The 1951-55 average exports of 5 million tons were only a third of total world exports (table 29). In 1958-59 and 1959-60 United States exports totaled over 12 million tons, about half of the world total.

LONGER-TERM TRENDS IN THE FEED SITUATION

Many phases of the feed situation have undergone marked changes during the last 2 or 3 decades. Changes in production practices, improvement in feed crop varieties and the shift from horse power to machines have materially changed production and consumption. Increased output per animal and relatively low feed costs in recent years have tended to increase feeding rates. Some of these trends, discussed in this section, may be expected to continue during years ahead; the course of others is much less certain.

Upward Trend in Yield Per Acre

Of the various trends in the feed situation in recent years, probably none has been more important than the upward trend in yield per acre. While yields of each of the four feed grains have trended upward, greatest gains have been in corn and sorghum grain. Increases in average yields have been especially pronounced since 1954. In 1937-41 the average yield of the four feed grains was .70 ton per harvested acre. Yields rose to an average of .87 ton in 1950-54 and on up to 1.16 tons per acre in 1958-60. Feed grain crops have been favored with generally good growing seasons in recent years and weather has played a part in maintaining yields at a high level. However, increased use of commercial fertilizer and improved varieties, including corn and sorghum hybrids, and wider use of irrigation have been major causes of higher yields. Although future increases may not be as pronounced as in the last 5 years, an upward trend in yield can be expected in the years ahead.



Practically No Trend in Total Acreage

During the last 20 years little net change has taken place in total acreage planted to feed grains, although acreage has varied somewhat from year to year. The average acreage planted in 1956-60 was within 1 percent of the 1937-41 average.

There has been considerable variation among the 4 feed grains. Acreages of **sorghum grain** and barley have increased substantially since 1953 with the drop in wheat and cotton acreage. After trending generally downward from the mid-thirties to 1957, corn acreage jumped from 74.5 million acres in 1958 to 85.5 million in 1959. This sharp increase reflects the termination of the corn Acreage Allotment and Acreage Reserve Programs. Oat acreage, on the other hand, has declined 30 percent from the record level reached in 1955. From 1955 to 1960, over 14 million acres were diverted from oats to other uses. The Conservation Reserve Program and higher corn acreage have absorbed much of this acreage. These trends have been largely responsible for the big corn crops and small oat supplies in 1959 and 1960, resulting in relatively high oat prices.

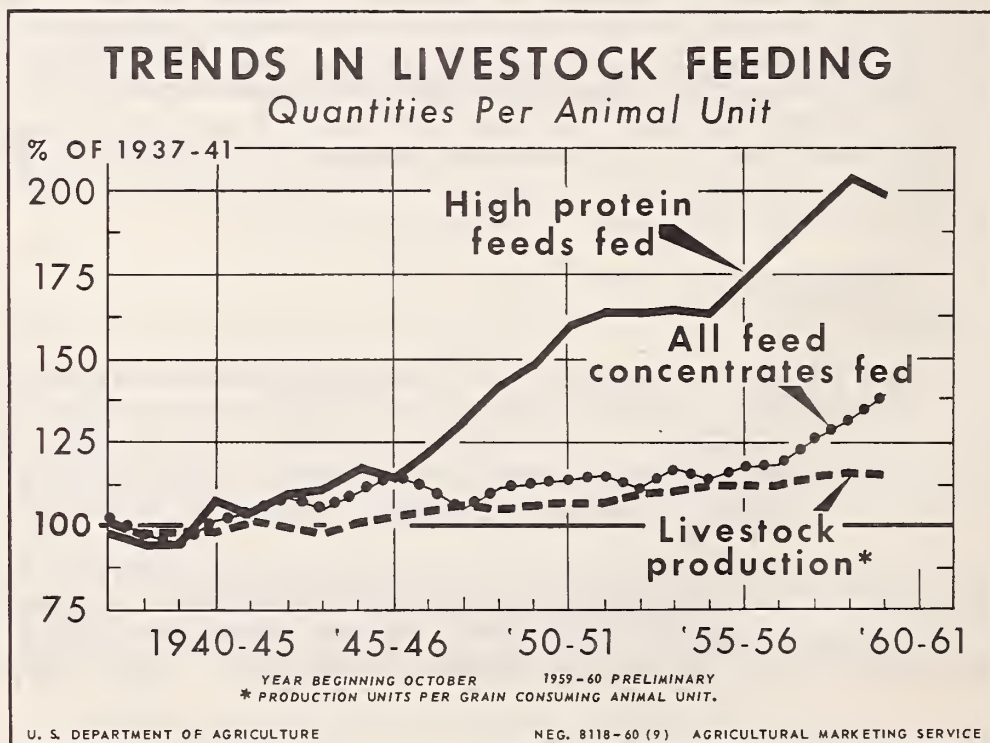
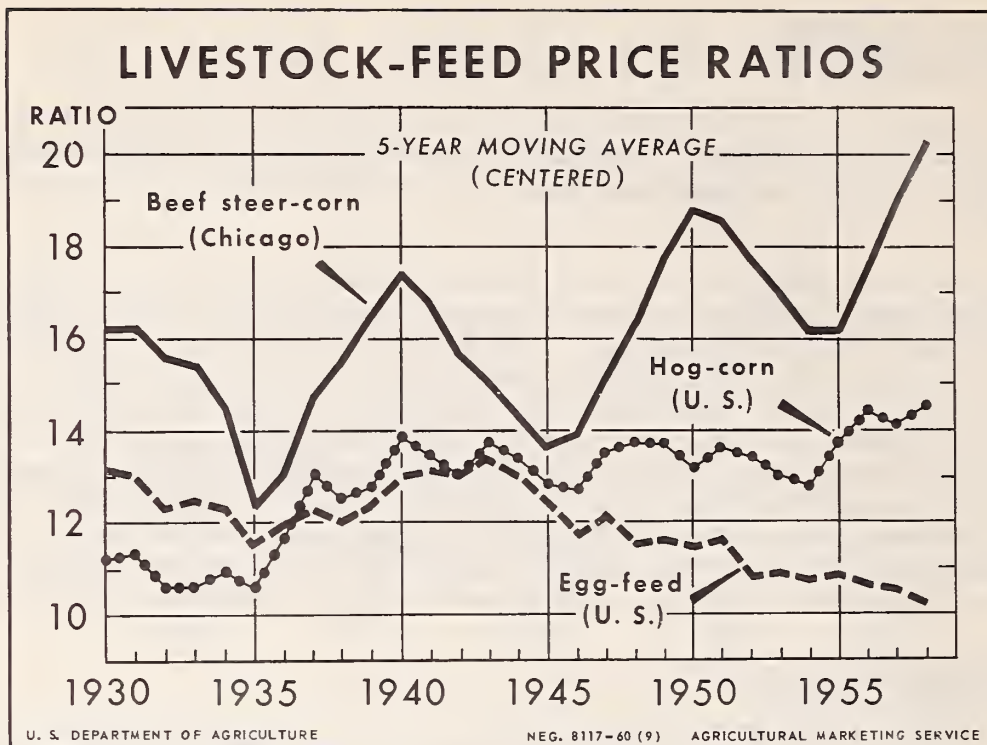
Production, Utilization and Stocks Trend Upward

With feed grain acreage about stable over the past 20 years, the upward trend in yields has resulted in corresponding increase in production. Production has increased about 40 percent in the last 8 years, nearly 60 percent in the last 20. While feed grain utilization--both domestic and export--has trended upward sharply in the last several years, total disappearance has consistently fallen below production since 1952, as shown on the cover chart. The average annual difference since 1952 has been about 7 tons or 5 percent of production. This has given rise to a steady increase in carryover stocks which reached 75 million tons in 1960. About 87 percent of these big stocks were owned by CCC, or were under loan.

Trends in Livestock-Feed Price Ratios

The last quarter century has seen some rather pronounced trends in the relation between feed prices and livestock prices. Trends in annual livestock-feed price ratios are somewhat obscured by the marked year-to-year changes. Trends in three of the ratios are shown in the chart on page 42 by a 5-year moving average. Even the 5-year moving average shows some rather wide swings.

The hog-corn price ratio, as shown in this chart, has trended upward during the last 30 years. The rise in the hog-corn price ratio apparently results from several factors. **The recent big corn crops have tended to lower corn prices relative to hog prices, whereas in the 1930's there were several**



short crops. The greater increase in production costs other than feed probably also has been a factor tending to increase prices required for hogs relative to corn. Price supports for corn may have a bearing since the corn and hog farmers are given more assurance on future corn prices than on hog prices. Because of this situation farmers may now require a little more premium for producing hogs than they did in years before the Government inaugurated the price support programs.

While there has been rather uniform and pronounced cyclical swings in the beef steer-corn price ratio, it also has trended upward reflecting rising beef cattle prices in relation to corn. In general, the same forces that influenced the hog-corn ratio apply to the beef steer-corn price ratio.

While hog and cattle prices have trended upward relative to corn prices, poultry and egg prices have declined relative to feed costs. In the early 1930's the average price of 1 dozen eggs was equivalent in value to 13.0 pounds of poultry ration. The long-term downward trend in the ratio brought it down to only a little above 10 pounds in recent years. In the last 10 years, there has been a **similar** trend in the broiler-feed price ratio. It declined from an average of 5.8 in 1947-51 to the current level of around 3.5. The decline in poultry ratios reflect increasing efficiency in converting feed to poultry and eggs, as well as a general lowering of per unit cost in poultry production through more efficient and larger scale production.

Feeding Rates Up Sharply In Recent Years

The quantity of all feed concentrates fed per animal unit has increased about 40 percent in the last 20 years and the rate of high-protein feeds fed has nearly doubled. The trend toward higher output per animal and improvement in livestock rations have contributed to heavier feeding of grains and high-protein feeds per animal. Dairy cows, for example, were fed 60 percent more grain and other concentrates per head in 1959 than 20 years ago. Milk production per cow has gone up about 40 percent. Dairy men are getting a relatively larger share of their feed from concentrates and less from roughages. In more recent years generally low feed prices in relation to prices of livestock and livestock products, and also in relation to other cost items, favor liberal feeding. Big feed grain crops well distributed over the country also have contributed to the increase in feed grain consumption. In 1959-60 the high feeding rate also reflects in part the large quantities of wet corn that resulted in heavier than average feeding and more than the usual loss or waste.

While the general tendency is toward increased output per animal, rate of increase has been more pronounced for dairy cows than for most other types of livestock. Livestock production (measured in production units) per grain-consuming animal unit has increased 15 percent since 1940. To get this heavier output per animal, farmers have been using relatively more feed grains and other concentrates, and have depended less on roughages.

Table 31.- Feed grains: Domestic disappearance and exports, by quarters, United States, average 1954-58, annual 1955-

Year beginning October	October- December 1/		January-March		April-June		July-September		October-September	
	Domestic	Exports	Domestic	Exports	Domestic	Exports	Domestic	Exports	Domestic	Exports
	disap- pearance	2/ bu.	disap- pearance	2/ bu.	disap- pearance	2/ bu.	disap- pearance	2/ bu.	disap- pearance	2/ bu.
Corn										
Average 1954-58	1,172	46	769	40	607	40	557	41	3,105	167
1955	1,145	38	748	26	533	34	554	22	2,980	120
1956	1,156	48	777	47	584	42	501	47	3,018	184
1957	1,169	62	765	48	660	43	579	47	3,173	200
1958 3/	1,285	60	884	50	724	62	619	58	3,512	230
1959 3/	1,370	66	1,000	50	785	59	710	53	3,865	228
Oats										
Average 1954-58	263	7	355	6	277	7	423	9	1,318	29
1955	281	9	386	5	297	9	442	11	1,406	34
1956	261	8	313	4	243	4	386	7	1,203	23
1957	228	8	330	4	269	9	406	6	1,233	27
1958 3/	278	7	372	10	288	9	414	18	1,352	44
1959 3/	225	11	280	7	210	9	335	12	1,050	39
Barley										
Average 1954-58	87	20	79	18	69	23	100	29	335	90
1955	89	22	88	18	65	33	87	23	329	96
1956	96	13	81	13	67	13	92	12	336	51
1957	93	24	75	25	70	32	107	39	345	120
1958 3/	84	30	80	25	75	23	115	41	354	119
1959 3/	81	29	93	26	59	22	99	23	332	100
Total (Million tons) 3 Grains										
Average 1954-58	39.1	1.9	29.1	1.7	23.1	1.8	24.8	2.0	116.1	7.4
1955	38.7	1.7	29.2	1.2	21.2	1.9	24.7	1.3	113.8	6.1
1956	38.8	1.8	28.7	1.7	21.8	1.6	22.5	1.7	111.8	6.8
1957	38.6	2.5	28.5	2.0	24.5	2.1	25.3	2.3	116.9	8.9
1958 3/	42.4	2.5	32.6	2.2	26.7	2.4	26.7	2.9	128.4	10.0
1959 3/	43.9	2.7	34.7	2.1	26.8	2.3	27.6	2.2	133.0	9.3
Sorghum grain (Million bushels) 4/										
1956	76	7	63	3	37	3	10	9	186	22
1957	118	7	83	10	66	16	10	24	277	57
1958 3/	177	24	79	28	64	18	5/	30	5/310	100
1959 3/	188	26	106	23	89	20	27	29	410	98
Total (Million tons) 4 Grains										
1956	41.0	2.0	30.5	1.8	22.9	1.6	22.6	1.9	117.0	7.3
1957	41.9	2.6	30.8	2.3	26.3	2.6	25.6	3.0	124.6	10.5
1958 3/	47.4	3.2	34.8	2.9	28.4	2.9	26.7	3.7	137.3	12.7
1959 3/	49.2	3.4	37.7	2.8	29.2	2.9	28.4	3.1	144.5	12.2

1/ Includes all corn in silage, part of which is consumed after January 1.

2/ Corn, cornmeal, grits and wet process products, oats and oat meal, barley and malt and sorghum grain.

3/ Preliminary.

4/ Quarterly disappearance not available prior to 1956.

5/ Quarterly figures for October-June domestic disappearance add to 320 million bushels, leaving a balancing item of -10 million for July-September. Some of the sorghum grain fed and exported in this quarter would come from the 1959 crop.

Table 32.- Corn and sorghum grain: Exports, United States, year beginning October, by months, average 1954-58, annual 1956-59

Year begin- ning	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.
	Corn (including equivalent of products) 1/												
Average:													
1954-58:	12,772	15,667	17,297	14,125	13,639	12,679	13,262	13,906	12,344	14,120	13,438	14,036	167,285
1956	12,056	18,530	17,135	15,040	14,429	17,748	14,525	15,655	11,505	12,332	19,373	15,505	183,833
1957	16,582	21,646	23,769	21,100	17,548	9,684	17,346	13,143	12,125	14,161	14,639	18,226	199,969
1958	16,884	21,321	21,593	17,496	17,520	14,893	18,049	22,894	21,298	23,434	17,233	17,612	230,227
1959	13,802	24,752	27,582	14,315	18,523	16,757	19,328	19,593	20,199	17,659	21,845	2/14,000	2/228,355
	Sorghum grain												
Average:													
1954-58:	3,498	3,727	4,807	4,671	4,027	3,737	2,918	5,254	5,738	6,891	7,938	5,433	58,639
1956	2,812	2,116	2,363	1,240	1,108	550	335	1,872	639	3,626	4,225	1,353	22,239
1957	2,181	1,684	3,474	4,345	2,613	2,716	3,378	7,990	4,727	10,262	7,388	6,528	57,286
1958	6,211	7,715	9,921	11,576	9,191	7,334	4,840	6,849	6,761	8,091	12,460	8,846	99,795
1959	5,083	9,253	11,952	8,870	8,817	5,007	7,354	8,292	4,814	9,687	10,369	2/9,000	2/98,498

1/ Beginning June 1956, includes shipments for relief or charity by individuals.

2/ Partly estimated.

Table 33.- Oats and barley: Exports, United States, year beginning July, by months, average 1954-58, annual 1956-60

[illegible]

Table 34 .- Feed grains: Receipts at primary markets, September, average 1954-58, 1958, 1959 and June-September 1960

Item	September			1960			
	Average						
	1954-58	1958	1959	June	July	August	September
	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	bushels	bushels	bushels	bushels	bushels	bushels	bushels
Corn, 13 markets <u>1/</u>	22,296	27,006	18,452	34,517	28,441	34,077	21,109
Oats, 13 markets <u>1/</u>	9,688	12,292	8,159	7,672	10,198	39,112	16,046
Barley, 4 markets <u>2/</u>	16,593	19,825	18,111	17,668	13,616	32,772	23,731

1/ Chicago, Milwaukee, Minneapolis, Duluth, St. Louis, Kansas City, Peoria, Omaha, Indianapolis, Sioux City, St. Joseph, Wichita and Toledo.

2/ Minneapolis, Milwaukee, Chicago and Duluth.

Table 35 .- Feed grains: Total stocks owned by CCC, in all positions, quarterly, January 1, 1956 to date

Year	January 1	April 1	July 1	October 1
	1,000	1,000	1,000	1,000
	bushels	bushels	bushels	bushels
Corn				
1956	759,590	717,851	700,789	818,408
1957	1,010,207	867,039	798,073	991,122
1958	1,117,972	1,064,107	1,021,432	1,101,237
1959	1,146,452	1,102,681	1,037,108	1,153,445
1960	1,225,183	1,196,916	1,151,917	1,285,881
Oats				
1956	31,504	35,194	58,548	49,255
1957	32,879	22,242	26,720	25,522
1958	16,959	12,735	26,660	27,453
1959	25,550	22,875	42,379	26,663
1960	11,730	12,194	14,514	11,252
Barley				
1956	30,499	38,084	60,473	54,918
1957	40,151	33,969	72,521	62,502
1958	42,381	28,576	85,480	74,440
1959	70,151	69,838	97,224	74,997
1960	62,568	57,533	68,709	61,245
Sorghum grain				
1956	47,057	25,202	101,482	75,220
1957	60,418	50,386	77,772	75,064
1958	69,446	74,668	307,445	295,021
1959	287,834	275,941	487,179	481,479
1960	480,019	475,337	571,692	548,588

Compiled from reports of the Commodity Stabilization Service, Grain Division.

Table 36.- Feed grains: Stocks by quarters, United States, 1958-60 1/

Year	January 1	April 1	July 1	October 1
	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.
	Corn			
1958	3,611,207	2,797,878	2,096,152	1,470,494
1959	3,926,866	2,993,747	2,207,763	1,530,437
1960	4,455,540	3,406,621	2,563,076	1,798,787
	Oats			
1958	928,228	597,563	324,800	1,329,736
1959	1,045,193	664,265	367,572	1,010,119
1960	775,149	487,979	269,404	1,100,287
	Barley			
1958	359,604	263,210	168,371	501,639
1959	393,663	290,888	194,998	462,802
1960	361,506	245,560	167,744	464,974
	Sorghum grain			
1958	518,157	425,002	343,084	309,398
1959	718,820	611,354	528,925	509,984
1960	874,718	745,946	636,277	580,765

1/ Stocks in all positions, including stocks on farms, mills, elevators and warehouses and Government-owned.

Table 37.- Feed grains: Distribution of October 1 stocks, United States, average 1955-59, annual 1958-60

Year	Farm	Commodity Credit Corporation 1/	Mill, elevator and warehouse	Total
	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.
	Corn			
Average 1955-59	341,797	581,749	400,635	1,324,181
1958	344,187	611,614	514,693	1,470,494
1959	331,318	564,817	634,302	1,530,437
1960	464,232	599,043	735,512	1,798,787
	Oats			
Average 1955-59	1,054,455	6,227	116,672	1,177,354
1958	1,197,244	4,932	127,560	1,329,736
1959	898,338	3,188	108,593	1,010,119
1960	979,146	1,149	119,992	1,100,287
	Barley			
Average 1955-59	268,705	7,375	169,744	445,824
1958	311,576	11,787	178,276	501,639
1959	266,882	15,156	180,764	462,802
1960	277,033	13,420	174,521	464,974
	Sorghum grain			
Average 1955-59	9,502	2,072	199,470	211,044
1958	13,412	3,096	292,890	309,398
1959	18,829	3,855	487,300	509,984
1960	22,629	5,260	552,876	580,765

1/ In bins or other storage owned or controlled by CCC; other CCC-owned grain is included in stocks at other positions.

Table 38.- Feed grains: Trends in acreage, production and utilization, United States, 1938-60

Marketing year beginning	Acreage planted 1/				Production				Total utilization 2/			
	Mil. acres	Pct.	Percentage of		Mil. tons	Pct.	Percentage of		Mil. tons	Pct.	Percentage of	
			5-year moving average	Annual			5-year moving average	Annual			5-year moving average	Annual
1938	150.7	99	101	96.8	90.1	93	87	90.5	88.6	87	86	
1939	150.1	99	100	95.8	99.3	93	96	94.0	96.5	91	93	
1940	150.1	99	100	98.6	103.4	95	100	98.6	103.5	95	100	
1941	150.6	99	102	105.1	106.5	102	103	109.8	109.6	106	106	
1942	157.5	104	103	120.8	110.7	117	107	124.7	113.9	121	110	
1943	162.2	107	104	112.1	113.7	108	110	120.7	117.8	117	114	
1944	163.4	108	104	116.7	117.3	113	113	115.6	119.9	112	116	
1945	153.4	101	102	113.8	111.9	110	108	118.3	115.0	114	111	
1946	153.5	101	101	123.0	116.6	119	113	120.2	113.5	116	110	
1947	144.6	95	99	94.1	117.3	91	113	100.2	114.6	97	111	
1948	149.7	99	98	135.4	118.9	131	115	113.4	115.8	110	112	
1949	147.6	97	97	120.0	116.9	116	113	120.7	116.3	117	113	
1950	151.3	100	97	121.8	122.0	118	118	124.5	119.2	120	115	
1951	143.6	95	95	113.0	118.4	109	115	122.9	119.5	119	116	
1952	139.1	92	96	119.7	119.2	116	115	114.5	118.9	111	115	
1953	140.7	93	97	117.5	121.0	114	117	115.0	119.5	111	115	
1954	155.5	102	98	123.9	124.4	120	121	117.4	120.0	113	116	
1955	157.8	104	99	130.9	129.1	127	125	127.5	123.8	123	119	
1956	147.1	97	100	130.2	137.1	126	133	125.5	130.7	121	126	
1957	152.6	101	100	142.9	145.4	138	141	133.7	138.6	129	134	
1958	145.9	96	99	157.6	152.2	152	147	149.4	144.7	144	140	
1959 3/	154.2	102		165.6		160		156.8		151		
1960 4/	149.0	98		164.9		159		158.2		153		

1/ Includes sorghum acreage harvested for grain.

2/ Marketing years: Corn and sorghum grain, October-September; oats and barley, July-June.

3/ Preliminary.

4/ Based on indications in October 1960.

Table 39.- Production, stocks, and foreign trade in byproduct feeds, foreign trade in feed grains, and corn and barley processing, September and October 1960, with comparisons 1/

Commodity	Production					Stocks 2/				
	1958-59	1959-60	1959	1960		Oct. 1,	Oct. 1,	1960		
	season	season	Sept.	Aug.	Sept.	1958	1959	Aug. 1	Sept. 1	Oct. 1
	3/	3/ 4/								
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons
Byproduct feeds										
Soybean cake and meal	9,490.1	9,126.9	647.2	752.5	629.2	48.1	58.5	130.4	94.7	82.8
Cottonseed cake and meal	2,153.8	2,507.8	227.1	68.6	189.3	71.2	97.0	189.9	157.7	137.1
Linseed cake and meal	451.5	360.7	53.9	21.8	40.4	26.3	33.3	39.4	27.0	29.4
Peanut cake and meal	75.3	60.4	4.3	4.3	2.2	1.5	1.8	4.8	3.4	1.8
Copra cake and meal	114.6	130.8	10.4	13.0	9.9	.1	5/	6.9	6.5	6.0
Total	12,285.3	12,186.6	942.9	860.2	871.0	147.2	190.6	371.4	289.3	257.1
Corn gluten feed and meal	1,044.2	1,135.7	93.3	101.5	95.3	5/	5/	5/	5/	5/
Brewers' dried grains	234.6	236.9	20.9	22.2	19.7	4.9	8.2	6.2	6.0	6.0
Distillers' dried grains	348.4	353.1	27.1	21.4	26.1	2.2	8.9	2.4	1.3	1.5
Wheat millfeeds	4,618.0	4,772.9	409.0	418.5	402.0	5/	5/	5/	5/	5/
Rice millfeeds	236.4	262.3	24.5	15.2	18.0	5/	5/	5/	5/	5/
Alfalfa meal	1,400.0	1,411.9	186.4	238.8	191.8	451.7	478.4	389.5	489.1	551.3
Fish meal and solubles	378.0	341.7	50.7	58.2	42.4	5/	5/	5/	5/	5/
Fats and oils used in animal feeds	237.8	239.4	17.2	21.5	21.8					
	Foreign trade									
	Imports					Exports				
	1958-59	Aug.	1960			1958-59	Aug.	1960		
	season	1959	June	July	Aug.	season	1959	June	July	Aug.
	3/					3/				
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons
Soybean cake and meal	6/	0	.1	0	0	512.2	36.4	44.5	31.9	48.4
Cottonseed cake and meal	127.5	.4	1.1	.3	.9	27.3	4.7	1.3	.8	5.8
Linseed cake and meal	4.0	.2	.1	.1	6/	31.2	4.4	1.2	2.6	1.8
Peanut cake and meal	0	0	5/	5/	5/	5/	5/	5/	5/	5/
Copra cake and meal	30.6	.9	.2	.6	.9	5/	5/	5/	5/	5/
Total	162.1	1.5	1.5	1.0	1.8	570.7	45.5	47.0	35.3	56.0
Wheat millfeeds	82.6	7.1	6.3	7.1	4.7	42.1	6.5	3.4	5.7	5.1
Fish meal and solubles	140.0	7.9	6.0	11.3	6.2	5/	5/	5/	5/	5/
Tankage	11.0	.9	.3	.3	.7	5/	5/	5/	5/	5/
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.
Feed grains										
Corn, including products	1,138	34	91	105	86	230,227	17,233	20,199	17,659	21,845
Oats, including oatmeal	3,460	232	80	79	112	31,892	6,359	3,741	2,188	4,065
Barley, including malt	14,311	1,147	1,012	813	1,172	116,685	15,128	8,140	6,007	5,995
Sorghum grain	5/	5/	5/	5/	5/	99,795	12,460	4,814	9,687	10,369
	Grain processing or use									
	1958-59	1959				1960				
	season 3/	July	August		May	June	July	August		
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.
Corn										
Wet-processing 7/	151,946	12,685	13,863	13,118	13,777	12,370	13,712			
Distilled spirits and alcohol	33,681	1,553	2,137	2,971	2,459	1,317	2,167			
Barley										
Malt liquors	76,822	8,073	7,278	7,835	8,262	7,389	7,504			
Distilled spirits and alcohol	7,612	330	492	717	615	331	468			

1/ Data compiled from reports of the Bureau of the Census, Agricultural Marketing Service, Fish and Wildlife Service of the Department of the Interior, and Price Waterhouse and Company, and Dun and Bradstreet, New York. 2/ At processors' plants. 3/ October-September year for all items except oats and barley which is July-June. 4/ Preliminary. 5/ Not reported. 6/ Less than 50 tons. 7/ Corn, wet processing, September 1960, 13,080,145 bushels.

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